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ABSTRACT

This book, volume two of a four-volume report of 44 school-based sites in the National Right to Read Program, documents the reading gains made by the students. Statistical data on reading test scores are charted by grade level and by total school for each of the sites involved. The same statistics are included on an across-site comparative basis. Each of the program/process variables reported is related to reading gains. This volume contains the findings of the analysis in terms of the relationship of reading achievement to the program/process variables and gives conclusions and recommendations of Contemporary Research Incorporated. In addition, the scope of work and the research methods used are presented in detail. (Author/WR)

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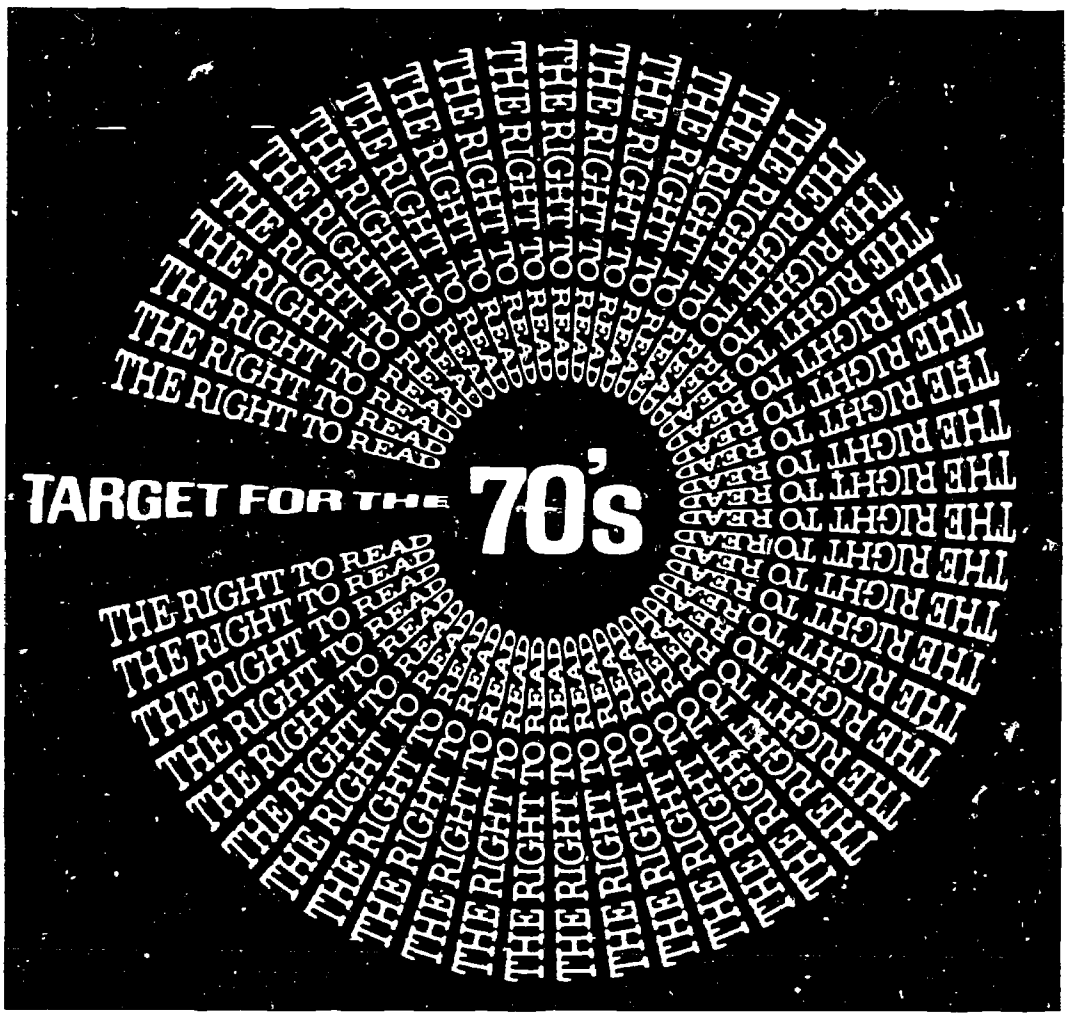

CONTEMPORARY RESEARCH INCORPORATED

evaluation of school-based right to read sites

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VOLUME II. EVALUATION OF READING GAINS

I. INTRODUCTION

Throughout this study CRI has been learning about reading. We have asked, How does a child learn to read? Why do some children learn to read while others don't? What do reading tests really measure? Simple questions like these are not answered simply. Arriving at answers involves the consideration of many complex factors each of which, in one way or another, affects the process of learning to read.

Many people have spent many years in the study of reading. Indeed, reading has without doubt been more fully investigated than any other school-related subject matter area. We should and do know a lot about reading. The problem is, there is not a consensus among experts on such critical matters as the most effective reading approaches, instructional techniques, materials, and teacher behaviors for producing better readers.

Perhaps the greatest divergence of views among researchers and reading specialists is in the area of reading approach. There are those who claim that the acquisition of reading skills is most enhanced by the phonics method. Others claim that reading is best learned by means of the whole-word approach. The former group emphasizes the need to learn how to "sound out" individual words by focusing on the individual letters or clusters that generate a word's composite sounds. This view emphasizes the importance of teaching "decoding". The latter group stresses the need to view reading skills as an extension of language or speaking skills. Since people learn to speak using whole words, not parts of words, it is suggested that learning to read should emphasize words as the basic units rather than parts or letters of individual words.

Jeanne Chall (1967) conducted an extensive review of the literature on reading and concluded that under certain conditions, and for specific student populations, the phonics approach has generally resulted in greater gains than other reading approaches. Since the publication of Chall's book, however, psycholinguistic researchers have begun to develop new theories of reading acquisition based on the whole-word approach. The major contribution of this research to the field of reading appears to be the exploration of the theory that relates reading skills to language--

or speaking--skills. Frank Smith (1971) has written persuasively that reading approaches not based on language skills result in slower progress, place greater burden on the memory, and produce less reading comprehension.

Yet another area of investigation that has recently begun to concern many researchers has to do with the relation of language differences (or dialect) to reading. Research by Dr. Roger Shuy (1972) presents evidence which strongly suggests that gains in the acquisition of reading skills are significantly associated with the teacher's understanding of language differences among students and the use of teacher skills that relate to the instruction of those particular students. Shuy (1971), points out, for example, that "the training of reading teachers has proceeded, to date, with practically no emphasis on training future teachers to hear, distinguish and analyze the language that the child brings with him to school and to which most of his reading will relate." In addition to pointing out the importance of understanding how dialects impact on the learning process, Shuy also stresses the need for teachers to have basic knowledge of how children acquire language so that they can determine what to expect of children and how to determine when the difficulty is the child's and when it is a result of ineffective teaching.

Research has also focused on teacher behaviors (or skills) as variables that meaningfully influence the process of learning to read. These studies may generally be classified in two ways. First, there are those studies which claim that there are no particular teacher skills which consistently relate to significant student gains in reading. Second, there are studies which suggest a series of teacher behaviors that, on the basis of some research, do appear to be highly related to the acquisition of reading skills. Findings from this second group are complicated by the fact that these studies contradict each other by suggesting divergent lists of such skills.

The reading literature uses three approaches to isolate factors relating to teacher effectiveness. These approaches are:

- Focusing directly on the impact of teaching on pupils;
- Focusing directly on various teacher factors; and
- Focusing on both pupils and teachers simultaneously.

In spite of this seemingly comprehensive approach to identifying teacher characteristics which appear to most strongly impact on student gains, research generally has not been able to isolate any set of skills, behaviors, or attitudes which are consistently related to reading outcomes.

The Right to Read Office funded approximately 160 schools at the beginning of the 1972-73 school year, mostly for implementation of new reading programs but also for disseminating already successful programs to nearby schools. These sites are comprised of students of all grade levels, socioeconomic levels, residential indices, and ethnic backgrounds. In addition to having a heterogeneous student population, reading programs at these schools vastly differ from one another. This is because schools were allowed virtually complete freedom in planning and implementing the type of reading program which they considered best for their students.

In short, the Right to Read Program has the opportunity to provide crucial information to the ongoing task of defining what reading approaches, materials, instructional approaches and teacher competencies are best, for whom, and under what conditions. As a first task, however, it was necessary to acquire a sufficient amount of descriptive information on many presently funded Right to Read sites. Once this basic information was acquired, the Right to Read Office would be in a position to implement the kind of evaluation that might begin to answer some of the questions we have discussed above.

The present evaluation has served two purposes. First, CRI has conducted an assessment of reading gains at the sites included in the sample. This assessment reports the amount of gain shown for each month of instruction at individual grade levels and identifies the overall gain for each school as well. Second, an extensive description of the basic components of each local reading program is provided to the Right to Read Office and other interested individuals.

CRI has called these components program/process variables. We feel that each of the variables we have identified in this report is related in some way to the reading progress made by students in Right to Read classes. The relationship may be negative or positive, and the variables range from the ethnic background of the students to the involvement of their parents to the particular reading approach used by the teacher.

In this assessment, CRI has charted reading gains made by students against each of the program/process variables showing which variables appear to make a real difference. It is important to note here that the charts and conclusions reported in these volumes do not represent cause and effect relationships; rather they show which variables have most frequently been associated with reading gains in this evaluation.

Within the framework of this study, CRI has been able to make several important contributions to the body of knowledge about successful reading programs. These are briefly described here in the order in which they appear in the report:

- Reading gains, based on an analysis of pre- and post-test scores, are reported by grade level and by total school for individual sites (by grade level across sites).
- A complete descriptive assessment of program/process variables at individual sites and across sites is included.
- Variables most highly associated with reading gains are identified and the degree of their association is explained.
- Findings of the assessment are analyzed to provide a profile of what future Right to Read Programs might look like, based on successful programs identified during this study.
- Re-usable assessment instruments developed by CRI for this study are included in Appendix B, Volume IV, as an aid to future evaluations.

Organization of this Report

- Volume I, The Summary of Findings, contains a summary of the entire study. A brief description of the Right to Read Program is followed by an overview of the Scope of Work and CRI's research methods and procedures. This volume summarizes the major findings and conclusions of the assessment.

- Volume II, The Evaluation of Reading Gains, documents in detail the reading gains made by students in Right to Read Programs included in this assessment. Statistical data on reading test scores are

charted by grade level and by total school for each of the sites involved. The same statistics are included on an across-site comparative basis. Each of the program/process variables reported is related to reading gains. This volume contains the findings of the analysis in terms of the relationship of reading achievement to the program/process variables and CRI's conclusions and recommendations. In addition, the Scope of Work and research methods are presented in more detail.

- Volume III, The Individual Site Assessments, describes each of the individual sites in terms of its school, student, teacher, and reading program characteristics. Separate sections are devoted to the effectiveness of Right to Read Program Planning Materials, the use of Technical Assistance Teams, and the involvement of parents and teacher aides. This volume also contains information from the projects' self-evaluations, including objectives and their degree of fulfillment, major findings, and the school's own recommendations.

- Volume IV, Appendices, contains CRI's evaluation of Right to Read planning materials, a bibliography of research materials used during the course of the study, a matrix of all Right to Read school sites, copies of the assessment instruments developed by CRI, and a list of consultants used in the evaluation.

II. DESCRIPTION OF THE RIGHT TO READ PROGRAM

A. The National Right to Read Effort

1. Goals and Objectives

The National Right to Read Program is designed to inform the public that there is a nationwide reading problem; to determine what changes are required to virtually eradicate this problem; to help those who are responsible for reading instruction and who need to change to do so; to identify existing public and private resources which can be used to accomplish these goals; to make additional resources available; to demonstrate, through the establishment of exemplary reading programs, effective techniques for the elimination of reading deficiencies, and, thereby, to increase reading competencies.

Right to Read has the single major goal of ensuring that, within the next decade, no American shall be denied a full and productive life because he/she lacks reading skills. Toward this end, the U. S. Office of Education (USCE) has planned, organized, sponsored, and is implementing a coordinated effort involving all segments of society, public and private, professional and non-professional. These resources are being combined in an effort to meet the specific Right to Read goal: to increase functional literacy so that by 1980, ninety-nine percent of the people in the United States sixteen years old, and ninety percent of the people over sixteen, will possess and use the reading competencies which will allow an individual both to take advantage of options that should be available and to create new options for himself.

The core philosophy of the Right to Read Program is that everyone can and should become functionally literate. The program is designed to change the present reading program failure mode of many schools to a success mode. The heart of Right to Read is a combination of the schools' acceptance of accountability for reading, expectancy of success, and new and varied instructional approaches based on individual diagnosis and prescription. The expectancy that all normal children can learn to read well, and an accompanying philosophy of accountability differentiate the program from previous efforts.

Right to Read is not a single reading program or method which is endorsed for teaching everyone to read; rather, it is a team effort requiring the marshalling of all the diverse, available resources to meet the stated objectives. It does not remove authority or responsibility from the State and local governments or from the community residents, where the responsibility for education properly rests in this country.

The focal points of the Right to Read Program for Fiscal Year 1972 were:

- To identify and coordinate the activities of both federally and non-federally supported reading programs which demonstrated effective alternatives to traditional approaches for meeting the national commitment.
- To initiate local pilot program efforts that would enable schools and communities to meet the special needs of our diverse society.
- To provide technical assistance for the development both of a sustained Right to Read Program and of a support service capability.

The emphases also recognized existing exemplary reading programs as a part of the National Right to Read Program.

2. Basic Assumptions of the Right to Read Effort

The Right to Read effort is predicated on the belief that successful reading programs are the shared responsibility of various types of individuals. These role groups include community residents and school administrators and teachers, as well as students. The following assumptions, therefore, provide a working base for these individuals in their cooperative endeavors to develop and implement successful reading programs:

- All individuals in a democratic society must have the opportunity to become functionally literate. The task of teaching individuals to read is a shared social responsibility.

- Each individual is unique, has his/her own rate of growth, and is affected by socio-cultural determinates.
- Educational institutions have the prime responsibility for producing functionally literate individuals, but all institutions share in this responsibility.
- Since reading is integral to learning, reading instruction must be a continuous process. Adults and children can learn to read if they are given an effective individualized program which is based upon multiple methodological approaches.
- The active support and involvement of the school principal is essential at elementary school Right to Read sites. He/she will, thus, serve as project director of the reading program at these sites.
- In-service teacher training should be a major area to which funds are allocated at each site, since emphasis is placed on that component in each program.
- The Right to Read emphasis on individualized instruction requires that the diagnostic-prescriptive approach to assessing student needs be used.
- Each teacher at each level of learning must recognize the role of reading in his/her field and provide needed assistance for the acquisition of reading skills.
- Parent involvement is of critical importance to the success of reading programs serving the students found in Right to Read schools. Parents, thus, should be given active and meaningful roles in the classroom.

3. Types of Right to Read Programs

a. General Description

Right to Read became operational in September, 1971, but, since most sites were not fully funded before the spring of 1972,

the first full year of program implementation did not begin at the schools until September, 1972.

Through the establishment of Right to Read Centers, local reading programs were designed to demonstrate effective procedures for eliminating functional illiteracy in a diverse population. Such procedures included, butwere not limited to, effective programs and practices for specific target populations, and specific administrative and organizational structures. Personnel were trained to implement such programs, practices, and structures in their respective districts or schools.

Right to Read Centers were selected to provide a geographical spread and to assure the involvement of various population groups from preschool children through adults. Several types of Right to Read Centers were established and funded in schools, colleges, and communities; this report will describe only school-based programs.

The organizational pattern of Right to Read was varied to meet local, State, and regional needs. Centers were requested to consider the following items in their program development:

- Geography: The reading needs of the population residing in urban areas (including the central city), rural areas, and metropolitan/suburban areas.
- Population: The diversity of population to include the monolingual, bilingual, and bicultural students. This population included white, black, oriental, Spanish surnamed, and French speaking students.
- Age Groups: The various age groups, preschool through adult.

b. Right to Read District

Right to Read Districts were made up of all Right to Read staff and students in a school district. Within these districts, Right to Read schools were given freedom to meet the varying demands of an effective reading program.

c. Right to Read School

Participating schools were requested to involve all staff and students in the school or administrative unit. Schools were encouraged to develop their programs in whatever way seemed most appropriate to assure effective reading in each individual classroom. A total of 160 schools were funded for the 1972-73 school year; these consisted of Transition, Redirection, Expansion, and Impact sites. The Master Matrix of sites (Appendix D) identifies these sites by grade level, urban-rural index, ethnicity, and other variables.

4. Types of Right to Read Sites

During the first year of operation all sites were initially identified as Transition, Redirection, Expansion, or Impact sites. These labels were not retained by all sites for the entire school year, as it became evident that some sites originally identified as Redirection were in reality already functioning as Expansion sites. Transition and Redirection sites were also referred to as Satellite sites, since they sustained a relationship with a nearby Impact site in which the latter aided in the development of effective reading programs at the former.

Right to Read Centers thus were located at the following defined sites:

- Transition Sites: Schools without substantial Federal funds earmarked for reading improvement; these schools demonstrate a willingness to make the transition from existing ineffective reading programs to effective reading programs. Such schools must contain the largest number of pupils in K-12 who fall in the lowest quartile in reading.
- Redirection Sites: Schools with substantial Federal funds earmarked for reading improvement; these schools demonstrate a willingness to make the transition from existing ineffective reading programs to effective reading programs. Such schools must contain the largest number of pupils in K-12 who fall in the lowest quartile in reading.

- Expansion Sites: Schools at which promising practices are occurring; Right to Read would expand such practices into exemplary programs. Such schools must contain a substantial number of students in the second and third quartile in reading, and must have modified the basic reading program.

- Impact Sites: Exemplary programs which can serve as demonstration projects in areas such as teacher training, the diagnostic-prescriptive approach, individualized instruction, and classroom organization and management.

The goals of each site included intervention in reading difficulties in order to eliminate them, and eventually to become an exemplary program worthy of demonstration and replication.

5. The Site Selection Process

The U. S. Office of Education solicited nominations from each Chief State School Officer for the placement of Right to Read programs in his state. Each nominated school or school district had to meet the criteria identified above in order to qualify as one of the four types of identified sites. The Office of Education selected sites in each state for the establishment of Right to Read programs, from among those states which submitted nominations. Subsequent to selection, the USOE required each site to submit a letter of commitment to the Right to Read Program and to submit a General Plan of Action. After receiving an expression of interest, commitment, and intent on the part of the local education agency, the USOE, with the assistance of State education and other agencies, engaged in planning for the establishment of a Right to Read program at the selection site. Any public or non-public school or school district officially recognized by the State Department of Instruction was an eligible applicant for a Right to Read program.

6. Funding

Money for program grants was made available from four sources: Title VII of the Elementary and Secondary Education Act, which supports educational programs for bilingual students; Title III

of the Elementary and Secondary Education Act, which supports innovative programs and supplementary centers; Part D of the Education Professions Development Act, for in-service training of teachers; and the Commissioner of Education's discretionary fund under the General Education Provisions Act.

Planning grants were made to identify the reading needs of the target population, to provide in-service training for personnel, and to develop the total reading program as outlined in the General Plan of Action. These grants were limited to a maximum of 120 days.

Operational grants, made subsequent to planning grants, were for the purpose of implementing planned Right to Read programs. These funds were allocated on a longitudinal basis in order to assure continuance of the Center program beyond the initial year. The Federal monies were meant to supplement State and local funds, not to supplant existing financial resources available to a school or district. Funds were also given for the following reasons:

- To provide additional personnel, both professional and paraprofessional, required to implement a diagnostic-prescriptive approach to reading instruction.
- To provide for staff development and training programs.
- To provide a limited supply of relevant materials and equipment.

The school or district was required to keep records of Right to Read income and expenditures separate from other fiscal transactions and records. Right to Read funds were not necessarily included in the annual budget of school districts.

B. General Plan of Action for the National Right to Read Effort

The General Plan of Action for the National Right to Read effort was based upon the premise that the Office of Education would maximize the potential of reading programs by creating a network of school- and community-based programs that would be "lighthouses" in fostering

development and change in reading programs and activities. This Plan had as its goal the eradication of reading disabilities and promoting functional literacy for all people in the United States by 1980.

The USOE approached the local school districts through the State education agencies' nominations and proposed that the districts enter into a participative program for developing and enhancing reading improvement. The Office of Education took the initiative and, through its proposal, outlined the basic framework for operation, but made the district responsible for developing a spirited attack on reading problems appropriate for each school. Technical assistance was provided to the school staff for program development, implementation, and evaluation. This assistance was provided through Technical Assistance Teams. The Office of Education retained the option to flash the GO, NO-GO, or Recycle signal at the end of an initial planning phase or at appropriate check points in the planning cycle.

1. Description of Roles in General Plan of Action

To effect the implementation of effective reading programs, the USOE identifed six major participating agencies and/or individuals. These were:

- The U. S. Office of Education
- The State Education Agency (SEA)
- Technical Assistance Teams
- The Unit Task Force
- Regional Offices of the USOE
- Local School District Administrative Heads

Although working in concert to establish Right to Read programs, these agencies and individuals followed clearly established USOE guidelines for their respective roles. These agencies' relationships are delineated in Exhibit II-1.

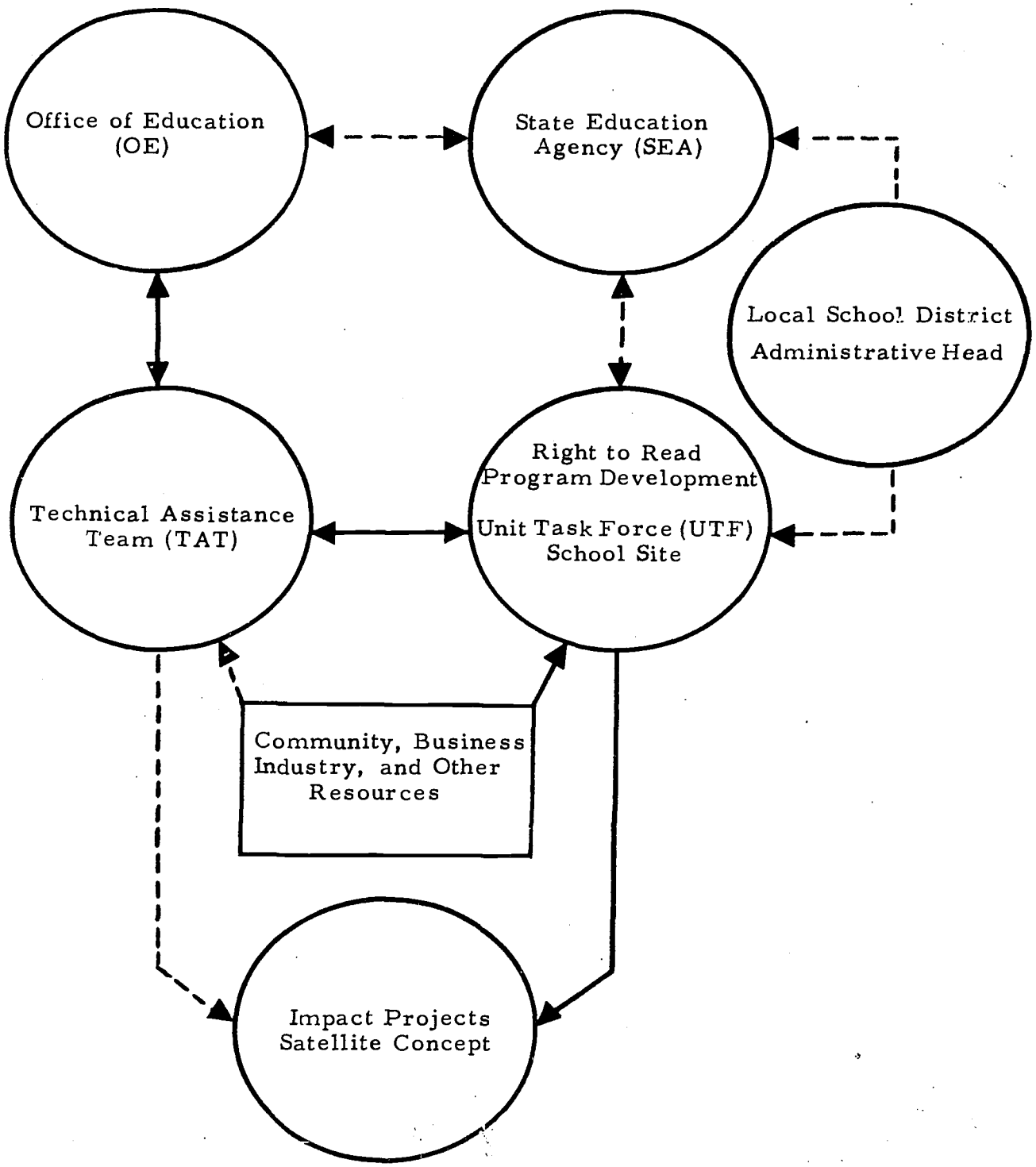


Exhibit II-1. Role and Relationship Chart for the Right to Read Program

a. Role of the U. S. Office of Education

While assuming responsibility for the coordination of all activities related to the National Right to Read Program, this agency performed the following specific functions:

- Development of a master plan to establish long- and short-range goals and procedures for the National Right to Read Program.
- Organization, planning, implementation, and evaluation of the National Right to Read Program.
- Development of alternative strategies for implementation.
- Assistance to State Education Agencies in the planning, implementation, and evaluation of local Right to Read Programs.
- Provision of continuous liaison, training, and control of Technical Assistance Teams.
- Participation in the dissemination of information related to Right to Read programs and the National Right to Read Program.

b. Role of the State Education Agency (SEA)

At the request of the USOE, each SEA agreed to perform the following functions:

- Nominate the local school districts for potential Right to Read participation.
- Provide information on promising practices now existing within the State.
- Participate with Technical Assistance Teams where specialized personnel exist.
- Redirect or supplement financial resources into Right to Read programs.

- Assist in the self-evaluation accreditation in Right to Read schools.
- Assist local Unit Task Forces with program formulation in such areas as needs assessment, program planning, implementation, and evaluation.
- Provide planning support in staff development for Right to Read programs.
- Utilize Right to Read criteria for State reading programs.
- Provide linkages from local units to the USOE.
- Disseminate information statewide on Right to Read programs.
- Utilize Right to Read standards and criteria and the General Plan of Action in Federal formula programs.
- Monitor Federally funded local Right to Read programs.

c. Role of Technical Assistance Teams (TATs)

In cooperation with State Education Agencies, TATs were organized to perform the functions as indicated below. Each team was composed of specialists and generalists in the fields of reading and language development. Organized in a manner to assure efficient and orderly assistance to Right to Read schools and districts as required, TATs performed the following functions:

- Implementing orientation activities for local Unit Task Forces.
- Assisting local Task Forces and SEAs with program development, in needs assessment, program planning, implementation, and evaluation.
- Assisting in the planning of staff development programs and activities for Right to Read programs.
- Assisting LEAs in providing liaison between local units and the U. S. Office of Education.

- Participating with SEAs in the dissemination of information of the goals, development, and progress of the Right to Read Program.

d. Role of the Unit Task Force (UTF)

The UTF within each school was the principal organizing, planning, and managing group for the school's programs. Each UTF was required to include the following as participating members:

- A central office administrative staff member at the assistant superintendent or equivalent level.
- The principal or head administrator of the selected school or district.
- Two Right to Read teachers from the selected school or district.
- Two parents of Right to Read students.

The Unit Task Force performed the following functions:

- Organization of the local district component for the Right to Read program.
- Planning of the needs assessment for the Right to Read program.
- Planning strategies for the diagnosis of reading needs in selected classrooms.
- Providing a prescriptive development plan for each student in selected classrooms.
- Implementation of evaluation procedures for assessing student progress.
- Planning program recycling efforts based on program progress.
- Providing liaison with the TAT, and through the TAT, to the USOE.
- Providing linkage with the community.

- Approving the program design for implementation.
- Disseminating program and progress information to other district schools.

e. Role of USOE Regional Offices

The USOE asked Regional Offices to perform the following functions:

- Monitor State Right to Read activities.
- Provide feedback to the USOE on promising reading practices in the region.
- Disseminate information on Right to Read programs in the region.
- Report Right to Read activities to the USOE.

f. Role of Local School District Administrative Head

The local school district administrative head was perceived as the major catalytic agent in the school. He set the educational tone, provided leadership, and managed the staff. A variety of techniques were employed to aid the administrative head in becoming (or maintaining the role of) a viable, change agent. His functions were to:

- Establish policies to facilitate the Right to Read program.
- Orient the total school staff on Right to Read goals and objectives.
- Provide linkage and coordination with the district office.
- Participate actively as a member of the local program planning team.
- Function as the educational leader and manager in the local school.

- Serve as the contact with SEA and USOE.
- Actively participate in staff development activities as a team member.
- Participate in the dissemination of information regarding the Right to Read program.
- Perform periodic review of the local Right to Read program and program objectives.
- Develop strategies for making maximum use of other Federal, State, local, and private funds and human resources.

3. Planning the Local Right to Read Program

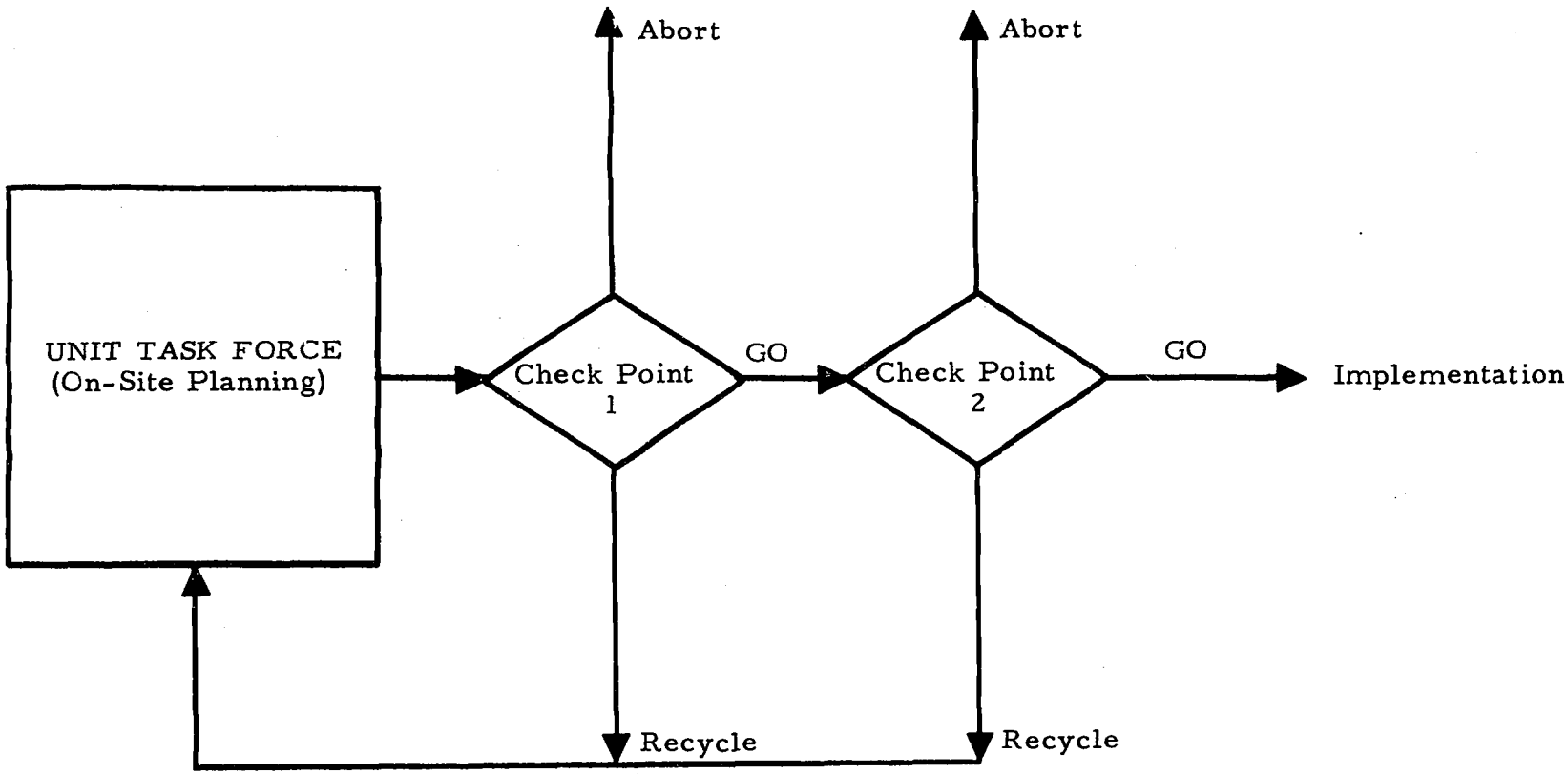
The Unit Task Force (UTF) at each school was responsible for planning that school's Right to Read program. Technical assistance was provided by USOE through the Technical Assistance Teams (TATs). In addition to providing ongoing consultant services, these teams evaluated planning done by the UTF at specified checkpoints and made appropriate recommendations (see the Planning Recycle Schema, Exhibit II-2).

Additionally, schools were required to use the services of community resources from outside of the educational system. These included business, industry, institutions of higher education, and other community agencies. Since USOE considered a determination of the priority of student educational needs to be the single most critical function of the planning phase, it was believed that by working jointly with these other community resources, the UTF would maximize its ability to plan effective reading programs for students served by the school.

Numerous elements of program development were considered by the UTF during the planning phase. These ranged from the initial selection of participating individuals to a final program evaluation. These elements are delineated below.

a. Initial Planning Steps

The UTF first identified the school program's student target population. This was followed by an analysis and ranking of



Check Point 1--Preliminary Plans Evaluated

Check Point 2--Final Plans Evaluated

Exhibit II-2. Planning Recycle Schema

special needs identified within that population. Students were individually diagnosed to determine these needs. Relevant program objectives were subsequently described in behavioral terms. Concurrently, staff and program needs that would further enhance objectives accomplishment were described. Finally, evaluation procedures to measure specific objectives were developed and provision made for reports and information dissemination.

b. USOE Mandated Components

The USOE had identified various program components considered essential for effective reading programs. Schools were required to take these components into account during the planning phase and to show how they would be incorporated into the program. These components are as follows:

- Performance Criteria

  Schools or districts were required to formulate specific performance objectives subsequent to needs assessment; one of these objectives had to reflect the amount of gain in reading scores achieved by students. A success criterion of one month reading gain for each month of instruction was placed on the schools by the USOE.

- Prior Commitment

  To eliminate the possibility that Right to Read funds would be used merely as an appendage to regular programs or as another layer of unsuccessful techniques, schools were required, before receiving funds, to present evidence of a commitment to change. The inclusion of staff involvement in individual student needs assessment activities was basic to this commitment.

- Impact Center Concept

  Programs within demonstration sites were expected to have a demonstrable impact on surrounding satellite schools.

Impact sites thus were to be working examples of concepts, processes, methodologies, and techniques. Opportunities were provided for observation of Impact site programs by interested groups or agencies.

- Program Content

The USOE placed no restrictions on the UTF in the selection of particular methods or reading approaches, provided selection was based on the needs of students as determined by assessment and diagnostic procedures. Program planners were required, however, to show how objectives related to the evaluation design and individual needs assessment. Additionally, programs were required to use the services provided by libraries and the media, and to consider the feasibility of replication in terms of cost.

- Diagnostic-Prescriptive Approach

This approach required the identification of reading strengths and weaknesses of individual students participating in the project. The diagnosis, done by standardized or locally designed instruments, provided for a subsequent planning process that capitalized on student strengths and helped overcome weaknesses.

- Staff Development

In-service training was viewed by the Right to Read Office as an essential element in an effective program. Heavy emphasis was therefore placed in this area, and clearly defined staff development activities were enumerated. Staff training programs for all professional and paraprofessional staff were required to be an integral, intensive, and continuous part of all Right to Read programs. Planned in cooperation with institutions of higher education, industry, business, community, and other agencies, staff development

programs emphasized "doing" on the part of all participants rather than "listening." USOE required that training activities be scheduled at times and places conducive to maximum learning and participation. Such activities, thus, could not be relegated to after school hours, weekends, or exclusively to summer institutes. Attendance was mandatory for all Right to Read personnel (including the administrative head) who came into contact with program participants. Four steps were required in planning the staff development and training program; these were:

-- Development of specific and concise objectives by the program implementors. These objectives were to be quantifiable, attainable, and stated in comprehensible language.

-- Determination of the priorities for program content by the program implementors.

-- Determination of appropriate methods to be used in meeting the objectives.

-- Identification of resources needed to implement the program.

- Parent Participation

The belief that parents have both the right and the responsibility to share in determining the nature of their children's education was basic to the involvement of parents in Right to Read programs. An active role for parents in all aspects of Right to Read was, therefore, a requirement for all participating schools. Provisions were made for parent participation in at least four ways:

-- Participation in the process of making decisions about the nature and operation of the program;

-- Participation in the classroom and school as volunteers, observers, or paid employees;

-- Provisions for regular home contact by Right to Read staff; and

-- Participation in parent educational and community activities which parents helped develop.

- Private Sector

Right to Read programs were required to use the resources available within the private sector for planning, implementing, and evaluating procedures. The private sector included, but was not limited to, business, industry, community and civic organizations, and private and professional organizations.

- Cost Effectiveness

Schools were required to maintain Right to Read programs at cost effectiveness levels. The cost per participant was not to exceed one-half of the district's ADA expenditures; it was also not to be prohibitive in terms of replication by other schools or districts.

- Review and Monitoring

The USOE required that continuous review and monitoring of Right to Read programs be an integral part of the program design. These procedures were implemented to permit necessary feedback, to initiate program changes, and to assure the achievement of stated objectives.

- Needs Assessment

A comprehensive needs assessment, including process as well as performance analysis, was an integral part of each Right to Read program. This assessment focused on "what is" in relation to "where you want to go" at each school.

- The Impact and Satellite Schools

  The Impact concept of the Right to Read Center included the influence of Impact sites on satellite schools. These satellite schools were expected to eventually become Impact sites.

  Definitive strategies for influencing specified satellite sites were identified for inclusion in the Impact sites' second year proposals. These included, but were not limited to, structure and content for training teachers and aides, individualizing instruction, modification of instruction, obtaining relevant curriculum materials, and procedures for ongoing evaluation.

- Dissemination of Information

  Schools were required to develop methods for communicating program information to the widest possible audience. Each school was asked to identify the individuals to whom such information would be disseminated as well as the type of information materials to be disseminated.

- Evaluation

  The USOE considered that a comprehensive and continuous evaluation system was necessary to assure program accountability. Techniques used in evaluation were to be determined by program objectives. A process evaluation at appropriate intervals and a final report were required. This report was to summarize data in a form that would allow the USOE to verify, summarize, and analyze local programs. The report would include a description of evaluation design techniques used, beginning and ending dates for evaluation data, and both process and product evaluations.

  Schools were given the option of using either standardized or criterion-referenced tests. In either case, it was expected that progress would reflect one month gain in reading for each month of instruction, as assessed by the administration of pre- and post-tests.

Since Right to Read programs were required to formulate plans allowing the program to serve the same students for a period of three consecutive years, the evaluation was to continue until it was satisfactorily determined both that students were functioning at a level equal to their grade placement and that possibilities of skill retention in subsequent years were good. Strategies would then be developed to transfer the program to a satellite school on a cost-sharing basis.

III. SCOPE OF WORK

This section presents an in-depth discussion of the tasks that CRI completed between 8 May 1972 and 1 September 1973 in its evaluation of the 1972-73 School-Based Right to Read Program. The tasks described in this narrative are organized chronologically and according to major task categories such as Assessment of the Planning Process and Materials, and Analysis of Work Statements. The purposes and products of each task as well as the steps taken in their completion are discussed here.

A. Literature Review

CRI staff members and a number of widely recognized consultants from fields related to the study undertook an extensive review of pertinent literature early in the project. This literature search continued throughout the course of the project; its purpose was to relate the research design, data analysis, and instrument development to current research as reported in professional journals.

The literature review included a search and digestion of available data in the following areas:

- Parental involvement
- Teacher/student interaction
- Teacher expectancy
- Student motivation techniques
- Self-concept
- Oral communication
- Student attitudes toward school
- Distinctive needs of minority students
- Teacher behavior
- Locus of control
- Reading approaches

One of the main objectives of the evaluation design was to relate program/process variables to student achievement. Teacher training techniques, instructional approach, program objectives, and parental involvement exemplify the variables which were investigated pursuant to this objective. These characteristics describe the operational aspects of the program and are antecedent to outcome variables. Successful programs and components could be identified by exploration of these variables, which were chosen because the literature review showed that they are highly correlated with student achievement.

Part of the continuing literature review focused on the various reading approaches that have been identified by the Right to Read materials; that focus provided information about the overlap that exists among those approaches. Further, the search provided a wealth of information describing the influence of parental involvement on student achievement. Both of these areas of inquiry have been correlated with student achievement gains and are discussed in a later section of this report.

The literature review was also useful in assuring that the CRI instruments were highly comparable (in both format and content) to previously developed, widely used instruments.

B. Assessment of the Planning Process and Materials

The National Right to Read Office provided each school-based site with a set of Program Planning Materials. CRI assessed the planning materials and the planning process that the sites were requested to use. The assessment was based on the perceptions and evaluative judgments of local project Unit Task Force members, Technical Assistance Team members, and CRI's own staff. The assessment identified areas where revisions were needed, either in the materials themselves, or in the process they initiated. Among the criteria for assessing the effectiveness of the materials were their degree of utilization, self-sufficiency, flexibility, and usefulness (particularly responsiveness to cultural differences within and among projects). All materials were also assessed according to whether they facilitated the major goals of the planning process. Those goals allowed for the following:

- Program planning based on an original and sensitive assessment of student needs as well as school and teacher resources;
- A mutual decision-making process involving parents, teachers, and principals;
- A systematic consistency among objectives, instructional components and techniques, and student outcomes.

The major step accomplishing this assessment of materials was the convening of Regional Workshops during July 1972, in Atlanta, Philadelphia, Chicago, and San Francisco. The purposes of the workshops were: (a) to assess the effectiveness of the prescribed planning process and materials, (b) to gather data on needed revisions of the planning materials, and (c) to involve all local projects in specifying objectives on which they would like their project to be described and evaluated by CRI. The workshops were attended by representatives of local Unit Task Forces, local Technical Assistance Team members, and the National Right to Read staff. CRI also provided reading consultants at each of the Regional Workshops.

Workshop participants (parents, teachers, and administrators) completed highly structured questionnaires and participated in in-depth focused group discussions directed to the following areas:

- Usefulness of Unit Task Force members
- Technical assistance support
- Needs Assessment Package
- Program Planning Procedure
- Status and Reporting Center
- CRI assessment areas

Small group discussions were the heart of the workshops. These groups were led by trained, experienced CRI staff members. Parents, teachers, and administrators participated in separate role groups to

help ensure an open and honest atmosphere. The small group discussions were designed to gather input on recommended changes and reactions to the procedures that may not have been covered in the more structured questionnaires. Following the small group meetings, a large session with all participants was held.

The data gathered in these workshops were analyzed by CRI staff members, who then met with consultants to discuss their findings. Based on these findings, CRI revised the Right to Read Planning Materials. CRI subsequently had the revised documents printed and sent 500 copies of each document to the Right to Read Office in Washington for dissemination to the school-based sites. (See Appendix A for a more detailed discussion of this task.)

C. Analysis of Local Project Work Statements

As a major part of its descriptive assessment of school-based Right to Read sites, CRI gathered information regarding contextual, process, and product variables. One of the major steps in fulfilling this task was to analyze Work Statements prepared by local projects. The information acquired from the Work Statements not only assisted in the description of the program sites, but also enabled CRI staff to develop a matrix describing the sites. This matrix, included as Appendix D of this report, presents sites according to the variables of geographic location, pupil ethnicity, grade levels, and urban-rural index.

The analysis of the Work Statements, which occurred simultaneously with the analysis of the Program Planning Process and Materials, enabled CRI to identify the following program variables:

Contextual

- Achievement scores (pre-tests) of students
- Ethnic composition of students
- Grade levels involved in the Right to Read Program
- Geographic location of sites
- Urban-rural index

Process

- Instructional approaches
- Instructional techniques
- Program objectives
- Inservice training of professionals and paraprofessionals
- Type of program (bilingual, reading, multi-subject)
- Parental involvement
- Personnel involved in program implementation

After an initial review of a number of Work Statements, CRI developed a scanning format which enabled staff members to tabulate data as they perused the material. Items on these forms were then tabulated to provide information that enabled the identification of the variables listed above.

D. Development of Data Collection Instruments

After analyzing Work Statements and findings from focused discussion groups, reviewing the literature, and holding workshops with CRI staff and consultants, CRI identified research questions and variables for inclusion in instruments to be mailed to school-based Right to Read sites. The following basic areas were investigated:

- What are the specific characteristics that describe each project component and process?
- What are the contextual variables of the community, school, student, and teacher population for each project?
- What are the different approaches that individual projects implemented to teach reading?
- What was the nature of the teacher training programs that were implemented?
- What was the reading level of students before and after implementation of the program?

- What strategies did teachers use in classroom management and instruction?

The instruments, which were to be completed by teachers at each site, contained questions assessing attitudes toward and information about the following (copies of all instruments are included in Appendix B):

- Right to Read Program
- Children from minority cultures
- Teacher aides
- Inservice training
- Teachers' expectations
- Locus of control
- Instructional techniques
- Teacher/student organization
- Pupil time in the program
- Evaluation techniques
- Class language and ethnicity
- Teacher demographic data: age; sex; ethnicity; marital status; number of children; area of residence; highest educational degree; area of education; year degree was awarded
- Teaching experience

Prior to instrument development, CRI staff and consultants reviewed existing instruments that had been used to measure the identified variables; this research was used in assuring that our research was empirically based.

Four instruments were developed for inclusion in the mailout. These instruments were developed for two purposes: first, to verify

information that was contained in each site's Work Statement but was not clearly defined, or to obtain information that was missing from the Work Statements. Second, these instruments were developed to elicit information that CRI staff and consultants had determined was essential for a thorough assessment of the Right to Read Program, but which was not included in the Work Statement outline.

The instruments were developed by CRI staff working both alone and in concert with consultants who are recognized experts in the fields of reading, education, linguistics, and test construction. Forms to elicit program process information were constructed by CRI staff members who had experience in questionnaire and interview guide design. Forms designed to gather data relevant to more abstract concepts such as teacher locus of control required the input of consultants.

CRI prepared a strategy for field testing the newly developed instruments before their actual use. This enabled CRI to receive feedback from respondents with regard to the instruments' clarity, ease of administration, and reliability. The self-administered forms to be mailed to sites, completed, and then returned to CRI were sent to two schools in California for field testing. One of these test sites was an elementary school; the other was a junior high school.

Analysis of the information gathered during field testing was done to determine item clarity, appropriateness, and reliability. The frequency analysis was done, in the main, to determine the degree of item discrimination that was indicated by the responses. Before the actual mailing of self-administered forms, a CRI staff member called each respondent school to ascertain the total number of teachers participating in the Right to Read Program. This informed CRI of the number of instruments needed at each site and the number of classes for which each teacher was responsible. The telephone call also served as a personal introduction of CRI to the local sites, especially for sites which had not sent a representative to the Regional Workshops.

E. Initial Report of the Right to Read Assessment

Near the mid-point in the project, CRI prepared a report for the National Right to Read Office. This report documented the activities in which the firm had engaged pursuant to its contractual obligations. The report covered the period from 1 July 1972 to 31 January 1973. The report contained a summary of progress and a full discussion of the activities which had been undertaken to date.

F. Analysis of Self Evaluation

One of the requirements that the National Right to Read Office had placed upon local sites was that they prepare a self evaluation report. CRI was charged with analysis of these self evaluations. In order to perform this task, it was necessary for CRI to first assure that all reports were similarly structured so that the reporting of information from all sites would be as uniform as possible. With this in mind, CRI developed a format for reporting the self evaluation information across all sites. The reporting format was approved by the National Right to Read Office and mailed to all sites in the CRI sample in the spring of 1973. This format, included in Appendix B, suggested the following guidelines for preparing self evaluations:

- Description of program objectives and the degree to which they were accomplished.
- Identification of present Project Director (name and job title).
- Total number of students (by grade level) in present Right to Read classes.
- Ethnic breakdown (percentages) of students presently in Right to Read classes by grade level. (Categories: American Indian, Black, Mexican American, Asian American, Puerto Rican, White, Other.)
- Ethnic breakdown of teachers of Right to Read classes by grade level.

- Nature and extent of inservice staff training.
- Activities of the Unit Task Force during the Planning and Implementation phases.
- Use of Right to Read Technical Assistants during both the Planning and Implementation phases.
- Description of the use of the diagnostic-prescriptive approach.
- Usefulness of the Program Planning Procedure and Status and Reporting Center materials.
- If there was a Reading is Fundamental program, a description of the nature of the program (e. g., parent involvement, increased reading of books by students, attitude changes toward reading, or other observed results related to this paperback book program).
- Student affective assessment (if attitude tests were administered, dates, scores, and a brief analysis of results).
- Parental involvement (e. g., how many parents were involved, types of activities).
- Procedure used in project evaluation (Who participated in the evaluation? Was evaluation ongoing or done at the end of the year? Approximately how many man-hours were required for evaluation?).
- Findings and recommendations of the evaluation.

There were a number of methodologies employed in the preparation of the self-evaluation information for analysis. Some of the data were immediately transferred to prepared forms that were later keypunched. Other information had to be categorized and then coded before the data could be keypunched.

A great majority of sites followed the CRI format, but there were a number that did not follow that format or neglected to supply information as requested. The staff reviewed the reports as they were received

to determine whether or not they were complete (i.e., followed the outline in all details). Those sites whose reports were incomplete were called and asked to supply the information over the telephone or by mail.

G. Collection of Student Achievement Data

As one of the criteria for inclusion in the CRI sample, sites were to have indicated that they were planning to administer standardized achievement tests to their students. Because the format for reporting these results would likely vary among the sites, CRI developed an achievement test reporting form to help ensure uniformity of data. The form called for some of the same information requested in the fall mailout to allow the CRI staff to match and correlate test results with data acquired from the instruments completed earlier by the teachers. The following additional information was requested:

- Total days in school year
- Total hours in school day
- Students' ages (years and months)
- Students' racial composition (Black, White, Spanish Surname, American Indian, Oriental, Other)
- Students' sex breakdown
- Each student's average number of hours daily in Right to Read instruction
- Each student's total days absent during the school year
- Name of the achievement test administered
- The forms given for pre- and post-testing
- The dates of administration of the pre- and post-tests
- The pre- and post-test scores (in grade level equivalents)

For the most part, achievement test forms were returned at the end of the 1973 school year in the same mailing with the self evaluations. The

CRI staff reviewed the achievement test forms for completeness and accuracy and, when problems arose, called the sites for clarification.

Review of the achievement test forms uncovered some unexpected problems. Some sites had not pre- and post-tested the same students; others had not used the same test for both test periods; a number did not report results in grade level equivalents.

Once a substantial number of the sites had returned the completed forms, CRI staff began the process of putting identification codes on them. To accomplish this step, it was necessary to locate the form filled out by the teachers reporting in the mailout and to transfer the sixteen-digit identification number to the achievement data forms.

H. Preparation of Special Report of Month-for-Month Gains at Right to Read School-Based Sites

At the request of the National Right to Read Office, CRI prepared a special report analyzing reading gains as indicated by standardized tests administered at forty-five Right to Read School-Based sites during the 1972-73 school year. On the basis of the information obtained from the sites as of 28 June 1973, the report identified the number of sites that had met the U.S.O.E. criterion for success (one month reading gain for each month of instruction), and reported the amount of gain at each of the forty-five sites.

Although much of the data had been mailed to CRI and were already on file, there were a number of sites that had not, at that time, returned the achievement test reporting forms. In coordination with the National Right to Read Office, CRI called these non-reporting sites and requested that they immediately supply the needed data for the special report. This information was provided over the phone, where possible. If that was not possible, information was supplied by telegram. The report, in its final form, indicated not only the number of sites meeting the U. S. O. E. criterion, but also specified the amount of gain per month and the regional location of sites meeting the criterion.

I. Description of Program Operations

Data collected from all sites via the Work Statements, fall mailouts, achievement test results, and the self evaluation reports have been utilized to operationally describe and categorize local projects. The results of this work have been included as Volume III in the Final Report. The data have been scrutinized to provide a descriptive analysis of program operations, and a number of these project components have been correlated with student achievement scores to determine those variables that are most highly associated with reading gains.

The categories of program/process variables listed below have been included in this descriptive analysis:

School Characteristics

- Geographic region and urban-rural index
- Student population
  - -- Total students in each grade level
  - -- Percent of each ethnic group

Student Characteristics

- Entrance requirements
- Number of students in each grade level
- Time in program
- Ethnic breakdown
- Pre- and post-test achievement scores

Teacher Characteristics

- Vital statistics: age; sex; ethnicity; areas of specialization; degrees; years of teaching experience; job title; residential urban-rural index
- Locus of control orientation
- Rating of Right to Read Program

Identification of Project Director

Effectiveness of Right to Read Materials

Technical Assistance Utilization

Parent Involvement

Teacher Aides

- Identification of aides
- Type of involvement
- Hours worked per semester
- Effectiveness

Program Characteristics

- Inservice training
- Unit Task Force activities
- Diagnostic-prescriptive approach
- Program location
- Student-teacher organization
- Student organization
- Classroom language(s)
- Reading approach
- Techniques used
- Evaluation procedures
- Total funding

Reading Gains by Grade Level

These variables have been used to describe the operations of individual sites. There are some variables that are also pertinent to a generalized description of the entire Right to Read Program; these have also been included in the descriptive analysis of the program on an across-site basis.

J. Intercorrelations of Program/Process Variables With Student Achievement Gains

As mentioned above, much of the information regarding program/process variables has been correlated (across sites) with student reading achievement scores to determine those factors that best characterize successful Right to Read Programs.

The data have been statistically analyzed and processed and are presented in tabular and graph form to allow for reader ease of interpretation. These tables are found in Volume II, Sections V, VI, and VII. The following program/process variables have been correlated with student achievement:

- Reading Approach
- Instructional Techniques
- Use of Diagnostic-Prescriptive Approach
- Program Location
- Teacher/Student Organization
- Unit Task Force Activities During Planning and Implementation
- Use of Technical Assistance Team During Planning and Implementation
- Parent Involvement
- Use of Program Planning Procedures
- Use of Status and Reporting Center
- Reading is Fundamental Program
- Geographic Region
- Grade Level
- Combined Classes
- Evaluation Activities
- Evaluation: Formative/Summative
- Inservice Training
- Number of Years Teaching
- Teacher Attributions Regarding Success and Failure

- Use of Teacher Aides
- Student Organization
- Student Ethnicity
- Student Sex

K. Preparation of Data for the Information Retrieval System

All instruments were designed so that data could be converted to machine readable form with minimal effort. Instruments were scanned and edited as they were received by return mail. Obvious errors were corrected and follow-up was done in those cases where it was not possible to correct errors at the initial scanning. The majority of items in the instruments were multiple choice and were precoded before administration so that no coding had to be done after they were received. The open-ended items were coded for entry into the system, and then the data were key-punched and verified from the forms. Statistical quality controls were used to ensure that the data were transformed properly. In addition to the detection of errors in the data transformation process, the computer was used to determine which data were missing, which answers were invalid or inconsistent, and which skip patterns had not been observed. Data items were checked for such errors as out of range, out of field, illegal character, and missing values. Procedures were followed for the correction of detected errors and follow-up was done to acquire missing data. The corrected data were then entered into the data base for analysis.

L. Preparation of Final Report

CRI's Assessment of the 1972-73 Right to Read School-Based Program culminates with the presentation of a report of findings. The report, of which this section is a part, will be completed by 31 October 1973.

The Final Report of the Right to Read Assessment is contained in three volumes, and five appendices. Volume I is a Summary of the Findings and contains an introduction and an executive summary. Volume II is devoted to an analysis of reading gains, and Volume III contains individual site assessments. Volume IV contains the appendices.

IV. RESEARCH METHODS AND PROCEDURES

A. Introduction

Contemporary Research Incorporated (CRI), under its USOE contract, has conducted a nationwide assessment of the Right to Read Program. The contract required an evaluation of school-based sites to determine the degree to which these sites were attaining the reading goals set both by the National Right to Read Office, and by the schools themselves.

Specific tasks of this study included performing a descriptive assessment of program/process variables, analyzing these variables in relation to student cognitive gains (reading achievement), and reporting on progress toward meeting the criterion of one month reading gain for each month of instruction. CRI's final task was to prepare a final report designed to inform a number of audiences of the program's impact. Those addressed by this final report include Congress, the Office of Education, local school administrators, parents, and the general public.

B. Site Selection

1. Methodology

In order to be included in the CRI sample, schools must have met three criteria which were established jointly by CRI and the National Right to Read Office. The criteria were: a) indication that standardized achievement tests would be administered to measure students' reading levels on a pre- and post-test basis, b) full program implementation as of the beginning of the 1972-73 school year, and c) full program funding as of the beginning of the 1972-73 school year.

While the National Right to Read Program allowed sites to use criterion referenced tests as well as standardized achievement tests to measure pupil reading gains, CRI chose to study only sites which had used standardized tests. This procedure was considered best for acquiring measures as valid and reliable as possible for the purpose of combining scores from different tests, comparing gains across grade levels and across sites, and to enable CRI to report gains in a uniform manner for all sites, i.e., in grade level equivalent scores. Full implementation

and funding were required for inclusion in this sample to assure an entire year of operation before evaluation.

2. Sample Description

Application of the three criteria led to the selection of a total sample of forty-four school-based Right to Read sites. The sites selected are spread across the six geographical regions identified by the National Right to Read Office (see Volume III, section I). They are dispersed as follows: Region A, five sites; Region B, nine sites; Region C, five sites; Region D, nine sites; Region E, eleven sites; Region F, five sites. Forty of these schools are elementary schools, three are junior high, and one is a high school.

C. Respondent Selection

1. Regional Conferences

Three groups of respondents were represented at the four Regional Workshops described in greater detail in the Scope of Work. Representatives were randomly selected from a list of all school-based programs; sites were then contacted and asked to send a parent, teacher, or school administrator from their Unit Task Force as a representative.

2. Mail-out

The mail-out materials were sent to all of the schools in the sample. Each teacher in the local Right to Read program was requested to complete three questionnaires, entitled Process Variables, Teacher Characteristics, and Teacher Questionnaire.

3. Self-evaluations and Student Achievement Reports

All sites in the sample were asked to prepare a self-evaluation report according to an outline suggested by CRI. In addition, all teachers in the Right to Read program were asked to complete a form listing information about students in their classes. This included individual pre- and post-test scores from each standardized instrument used in the assessment.

D. Instrumentation: Data Collection Methodology

1. Regional Conferences

Eight self-administered questionnaires were developed to assess the Right to Read Program Planning Process and Materials at the Regional Workshops. These instruments are described below.

a. Unit Task Force Questionnaire

This questionnaire was administered to all UTF members and was designed to elicit information regarding the operational characteristics and functions of the group. A number of questions were geared toward determining the working relationships of parents, teachers, and administrators and the means for selecting UTF members.

b. Technical Assistance Support Questionnaire

The TAS was directed toward ascertaining the quality and quantity of assistance that sites were receiving from the Technical Assistance Teams provided by the National Right to Read Office. This instrument was completed by two groups: the Right to Read Technical Assistants and members of the Unit Task Force.

c. Needs Assessment Package Questionnaire

The general purpose of this form was to tap representatives' feelings about the NAP's usefulness and clarity in program planning. Specific information was requested about the usefulness and clarity of the package's directions and charts.

d. Program Planning Procedure Questionnaire

The Program Planning Procedure Questionnaire was designed to obtain the respondents' opinions about the usefulness and clarity of the planning steps and the charts which described those steps.

e. Status and Reporting Center Questionnaire

The questions on this form measured the UTF members' reactions to the S and RC materials in terms of how they were utilized, their usefulness, and their clarity.

f. CRI Assessment Areas Questionnaire

The items on this form were developed by CRI as a guide for determining evaluation criteria that could be applied across sites. Respondents were asked to indicate which of several suggested areas of evaluation were applicable to their programs in terms of their specific goals and objectives. These items were later used in constructing forms for the mail-out.

g. U. S. Office of Education Objectives Questionnaire

Respondents were asked to indicate which of the USOE-suggested objectives were incorporated into their program's goals and objectives.

2. Mail-out

During the course of the school year, four instruments were mailed to each site in the sample. These instruments, entitled Process Variables, Teacher Characteristics, Teacher Questionnaire, and Reading Achievement Data Form were completed by the teachers involved in the Right to Read program. A suggested outline for reporting self-evaluation information was also mailed to the sites to aid project directors in reporting their own evaluation activities.

a. Process Variables Instrument

This instrument was developed to ascertain the particular program and process variables that correlated most highly with student reading gains; it also enabled CRI to write a comprehensive, descriptive assessment of each site's reading program. The Process Variables instrument was designed to provide extensive information on the following variables:

- type of reading approach used
- number of hours devoted to the instruction of each type of reading approach
- teacher-student organizational scheme

- evaluation procedures and techniques
- instructional techniques
- classroom organization
- ethnic breakdown of the class

b. Teacher Characteristics Instrument

This instrument assessed three major categories of variables (teacher and class demographic characteristics and teacher attitude toward the Right to Read program). The demographic characteristics included the following:

- age
- sex
- ethnicity
- marital status
- number of children
- residential index
- educational history
- teaching experience
- job title
- characteristics of the students' spoken language
- role of teacher aides

Measurement of teacher attitudes toward Right to Read was done by teacher ratings of the effectiveness of program features and by determining whether each teacher would choose to continue in the program if he/she were given the option.

c. Teacher Questionnaire

The items included in this form were directed toward ascertaining teachers' locus of control with regard to attributions of student success in learning to read. Teachers were given a list of items

to which student success might be attributed and then asked to indicate the degree to which they would agree that success was traceable to the reasons listed.

d. Student Reading Achievement Data Forms

Student achievement data forms were mailed to all of the sample schools to be completed for each Right to Read class. Data for each class included the following:

- state
- city
- name of school
- number of days in the school year
- number of hours in the school day
- grade
- section
- name of teacher

This information was needed for descriptive and identification purposes as well as for use in making correlations with reading achievement gains.

In addition, the forms requested the following data about each Right to Read student in the class:

- age (months and years)
- ethnicity
- average number of hours daily of Right to Read instruction
- number of days absent during the school year
- pre- and post-test reading achievement scores, name of testing instrument(s) used, form(s), and dates administered.

e. Self-evaluation Report Outline

A major component in the Right to Read study was the task of summarizing and reporting information supplied by the schools in their own project evaluations. CRI developed an outline for each site to use in reporting this information to assure some degree of uniformity. This outline was mailed with the student achievement data forms. Sites were asked to report on all areas included in the outline, but were free to incorporate additional information as they desired. The following items were included in the outline:

- Description of program objectives and the degree to which they were accomplished;
- Identification of present project director (name and job title, e. g., Principal, Teacher, etc.);
- Total number of students in present Right to Read classes, by grade level;
- Total number of students presently enrolled in the school, by grade level;
- Ethnic breakdown (percentages) of students presently in Right to Read classes, by grade level;
- Ethnic breakdown of teachers of Right to Read classes, by grade level;
- Nature and extent of in-service staff training;
- Activities of the Unit Task Force during both planning and implementation phases;
- Use of Right to Read Technical Assistants during both planning and implementation phases;
- Description of how the diagnostic-prescriptive approach was used;
- Usefulness of the Program Planning Procedure and Status and Reporting Center materials;

- Nature of the Reading is Fundamental (RIF) program (if present);
- Student affective assessment;
- Parental involvement;
- Procedures used in project evaluation; and
- Findings and recommendations of the evaluation.

E. Data Analysis

1. Process Variables, Teacher Characteristics, Teacher Questionnaire

Analysis of the data from these instruments essentially served two purposes; first, it made a descriptive assessment of individual sites possible, providing the USOE with much needed information. Second, it allowed for the calculation of correlations between program components and student reading achievement gains. This analysis identified the program characteristics most frequently associated with the highest reading gains.

A single score has been computed for each of the variables examined in these instruments. In determining the correlations between these variables and student reading gains, analyses have been performed in two ways. In most cases, single variables (such as number of years' teaching experience) were correlated with reading gains. In other cases, two variables were considered simultaneously while a correlation with reading gains was calculated.

2. Self-evaluation Reports

CRI staff reviewed, categorized, and analyzed the self-evaluation reports from the individual projects in the sample. This procedure resulted in the identification of specific activities undertaken in each program which were not elicited by CRI's instruments.

3. Reading Achievement Scores

For each site in the sample, a mean grade level equivalent score was computed for the pre-test and for the post-test. This was done both for each grade level and for all grade levels combined. In

addition, a mean gain score was computed for each grade level and for all grade levels combined. Mean gain scores were also computed for each grade level across all sites.

When more than one test was administered to any student, the various scores were summed and a mean was calculated to provide a single score for that student. The differences in variance among different tests are virtually negated by the large sample size available in the present study. The validity of this technique has been supported by other national studies in the area of reading.

V. READING GAINS

A. Individual Sites

This section reports reading achievement scores from all sites included in the CRI sample. The Right to Read Program was operational at these sites for the entire 1972-73 school year. Standardized reading tests were used for pre- and post-testing; in most cases, pre-tests were administered in the Fall of 1972, although a few sites administered pre-tests in the Spring of 1972, at the close of the 1971-72 school year. Adjustments were made in calculating the mean gain per month of the latter group of sites, since they had no instructional activities during the summer months.

A proper interpretation of achievement scores requires that two considerations be kept in mind. First, the USOE success criterion for Right to Read was one month gain for each month of instruction at fifty percent of all sites. A second consideration is the fact that the majority of students in these programs were identified as poor readers at the beginning of the 1972-73 school year. This was required by the General Plan of Action for School-Based Right to Read Centers, which stated that, in order to receive funding, all Transition and Redirection sites had to show that "the largest number of pupils in K-12 ... fall in the lowest quartile in reading" (p. 3). The same document required that Expansion sites "contain a substantial number of students achieving the second and third quartile in reading ..." (p. 4). All schools reported below were either Transition, Redirection, or Expansion sites. Thus, a site that did not demonstrate month-for-month gains may nevertheless have upgraded its reading program and the reading skills of its students considerably during the year.

The pre- and post-test scores indicate the amount of gain achieved per month of instruction. Scores from different classes within a specified grade level were combined to allow for a single grade equivalent or mean gain score for the entire grade level.

Achievement scores from all elementary and junior high schools in the sample, as well as the senior high school, are reported in Exhibits V-1, V-2, and V-3, respectively. The exhibits report pre-test and post-test grade equivalent mean scores for each grade level tested at every site. Scores from the high school are not reported by grade level since the site did not separate scores by grade level. Additionally, the average monthly gain for each month of instruction is indicated by grade level at each site and for the entire school. A single standard deviation score is also reported for each school.

A number of sites administered more than one standardized measure of achievement. Sites were given the option of administering different tests since the U.S.O.E. did not mandate a particular test for project use. Mean gains for each student were computed in this analysis. When more than one test was administered, gain scores on each test were combined to provide each student with a single mean gain score. In cases where more than one test was administered, the elapsed time between pre- and post-tests was computed separately for each test.

Combining Scores Across Tests

CRI has been consistently aware of certain problems inherent in any evaluation program that combines scores across different standardized tests to obtain a single mean gain score for each student, for each grade level at a given school, and for an entire school (combining grade levels). Although the reliability of such tests is generally high (averaging about .90) it appears that each publisher has normed his test on different samples, resulting in different norms across tests. However, grade equivalent scores (as used in this study) are derived on the same normative scale. It may be estimated, therefore, that independent test norms are within five percentile rank points of one another. This amounts to only a small fraction of the variance found across tests on grade equivalent scores.

Exhibit V-1. Pre-Test, Post-Test and Mean Gain Scores for Elementary Schools

School Code	Pre-Test Mean Scores (Scores in Grade Level Equivalents)						Post-Test Mean Scores (Scores in Grade Level Equivalents)						Mean Gain Per Month of Instruction*							
	Grade Level						Grade Level						Grade Level						Total School	
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	G	SD
0101	0.5	1.2	2.5	4.3	4.5		1.4	2.2	3.0	5.0	5.3		2.9	2.0	1.4	1.8	1.6		2.0	1.4
0201	2.8	2.1	3.2	4.1	5.5	5.6	2.3	3.4	4.4	5.2	6.6	6.6	0.6	1.2	1.2	1.0	1.1	1.0	0.9	1.1
0401		1.7	2.7	3.8	4.8	6.1		3.5	3.9	4.5	5.8	7.3		2.6	1.7	1.0	1.4	1.8	1.7	1.0
0509	0.9	1.9	2.5	3.3	3.9	4.8	1.8	3.7	4.0	4.4	5.3	6.0	1.2	2.4	2.0	1.5	2.0	1.8	1.8	1.2
0510		2.1	2.4		4.2	4.6		2.5	2.9		4.4	5.1		0.4	0.5		0.2	0.5	0.4	0.8
0602		2.1	3.1	3.5	4.3	4.9		3.0	4.1	4.6	5.1	6.0		1.3	1.5	1.6	1.1	1.5	1.4	1.0
0801	1.1	2.7	2.3	2.9	4.1		3.1	3.2	3.5	4.1	5.1		2.9	0.6	1.7	1.7	1.4		1.6	1.3
1001		1.9	3.0					2.7	3.7					0.9	0.8				1.0	0.8
1301				4.0						4.9						1.2			1.1	1.1
1501		1.7	2.4					2.2	3.1					0.6	0.7				0.7	0.5
1502	2.4	1.4	1.8	2.7	3.2	3.8	4.8	1.9	2.6	3.2	3.8	4.7	3.0	0.6	1.0	0.7	0.8	1.2	1.0	1.0
1504			2.7	2.8	3.7	4.1			3.4	3.7	4.1	4.8			1.0	1.2	0.7	0.9	0.9	1.1
1505		1.7	2.3					2.4	2.9					1.1	1.0				1.0	0.7
1601	1.4	2.1	2.7	3.1	4.0	5.1	1.8	3.2	3.5	3.9	4.4	6.7	0.6	1.5	1.1	1.1	0.6	2.3	1.2	1.4
1701		1.7	3.2	4.1	5.1	5.8		2.5	4.0	4.6	5.3	6.5		0.7	1.1	0.7	0.3	0.9	0.8	0.8
1801		1.4	2.6	3.9	4.0	4.5		2.5	3.2	4.6	4.3	5.2		1.1	0.6	0.7	0.3	0.8	0.8	1.1
2101			2.6	3.1	3.8	4.8			3.4	3.8	4.7	5.7			0.8	0.7	0.8	0.9	0.8	0.7
2105						6.5						7.5						1.0	0.9	0.6
2402		1.9	3.3	3.9	4.4	5.1		2.4	4.0	4.8	5.1	5.7		0.7	1.0	1.3	1.0	0.8	1.0	1.1
2602		1.9	2.8	3.6	4.0	5.6		3.0	3.9	4.4	5.0	6.5		1.0	1.1	0.8	1.0	0.9	1.0	0.9
2701	1.5	2.6	3.5	4.8	5.1	6.6	2.0	3.4	4.0	5.5	6.0	7.8	1.2	1.1	0.9	1.2	1.8	2.7	1.1	1.3
2801	1.2	1.9	3.1	3.6	4.2	4.9	2.2	2.8	3.7	4.3	4.9	5.4	1.8	1.2	0.9	1.0	0.9	0.8	1.1	1.3
2901		2.2	2.8	3.4	3.9			3.0	3.7	4.0	4.6			0.8	0.9	0.7	0.8		0.8	1.0
3201		1.3	2.1	2.7	3.0	4.1		1.9	2.6	3.6	3.7	4.9		0.6	0.4	0.9	0.6	0.8	0.7	0.6
3202		1.9	2.6	3.2	5.0	5.4		2.6	3.8	4.1	5.8	6.1		0.9	1.4	1.0	0.9	0.8	1.0	1.1
3302			2.1						2.8						0.7				0.7	0.4
3306			3.0		6.0				3.5		6.5				0.9		1.2		1.3	1.4
3402		1.6	2.6					2.5	3.8					0.8	1.0				0.9	0.8
3801		1.6	2.2	2.4	3.0	4.2		2.5	3.8	4.0	4.2	6.0		1.2	2.3	2.0	1.8	2.5	2.0	1.0
3901		1.8	3.2	4.2				4.0	4.4	5.5				2.2	1.2	1.3			1.5	1.2
4101	1.1	2.3	3.1				2.0	3.1	4.2				1.1	1.0	1.4				1.2	0.8
4201		1.6	3.0	3.5				2.3	4.3	5.2				0.9	1.6	2.2			1.6	1.2
4506	0.7	1.9	2.8				2.4	3.0	3.6				2.1	1.6	1.1				1.6	1.1
4510	1.8	1.8	1.9	2.7	3.3		2.3	2.3	2.4	3.5	4.3		0.7	0.7	0.8	1.2	1.4		1.0	1.3
4511		1.7	2.0	2.4	2.9	3.3		2.1	2.3	2.7	3.4	4.3		0.6	0.5	0.5	0.9	1.5	0.5	1.1
4512		1.6	2.2	2.7	2.8			2.1	2.8	3.1	3.9			0.7	1.0	0.7	1.3		1.1	1.2
4601	1.6	2.6	2.9	3.8	3.7	6.5	2.0	3.2	3.7	4.7	5.0	8.1	0.6	1.0	1.3	1.6	2.1	2.7	1.6	1.7
4701				2.8	3.3					3.5	4.2					1.0	1.6		1.3	1.6
5101		1.8	2.0	3.5				2.9	3.8	4.6				1.3	1.2	1.4			1.3	0.8
5201			2.7	3.6	4.5	5.4			3.5	4.6	5.3	6.0			1.1	1.4	1.2	1.0	1.2	1.4

Key: G = Gain; SD = Standard Deviation

*Total school gain includes gain from combined and special classes not reported on this page. (See Exhibit V-5, this volume). Mean gain scores were computed by dividing the difference between pre- and post-tests by the number of months that elapsed between the two tests. Relatively small pre-test to post-test differences therefore could result in gains beyond 1.0 per month of instruction if only five or six months elapsed between tests.

Exhibit V-2. Pre-Test, Post-Test, and Mean Gain Scores for Junior High Schools

School Code	Pre-Test Mean Scores (Scores in Grade Level Equivalents)			Post-Test Mean Scores (Scores in Grade Level Equivalents)			Mean Gain Per Month of Instruction *				
	Grade Level			Grade Level			Grade Level			Total School	
	7	8	9	7	8	9	7	8	9	G	SD
3001	7.5			8.2			1.2			1.2	1.6
4301	7.1	8.1	9.6	7.8	8.8	10.2	1.0	0.9	0.9	0.9	1.2
5001	4.8	5.1	6.3	5.5	5.4	7.0	0.9	0.4	0.9	0.7	1.5

Key: G = Gain; SD = Standard Deviation

Exhibit V-3. Pre-Test, Post-Test, and Mean Gain Scores for High School

School Code	Pre-Test Mean Scores (Grades 10-12)	Post-Test Mean Scores (Grades 10-12)	Mean Gain Per Month Of Instruction *	
			Gain	Standard Deviation
5301	8.8	9.7	1.4	3.3

*Mean gain scores were computed by dividing the difference between pre- and post-tests by the number of months that elapsed between the two tests. Relatively small pre-test to post-test differences therefore could result in gains beyond 1.0 per month of instruction if only five or six months elapsed between tests.

Regression to the Mean

The phenomenon known as regression to the mean refers to the tendency of low scores on a pre-test to increase on the post-test even though no true learning may have taken place. Likewise, scores that are high on a pre-test will regress downward, or toward the mean, on a post-test thus reducing the amount of true learning that may have occurred. Regression toward the mean for both high and low scores is mainly attributable to the fact that pre-tests and post-tests are seldom, if ever, perfectly correlated with one another. Since the readers who participated in the Right to Read Program were mainly poor readers (this was a requirement for funding purposes) we are mainly concerned with the regression of low scores upward from pre-test to post-test, that is to say, how much of the overall gain in reading scores during the 1972-73 school year is indicative of true learning and how much is merely attributable to the effects of regression to the mean?

Inasmuch as schools were allowed virtual freedom in selecting whatever standardized tests they desired to assess reading gains of students and these tests have varying degrees of reliability, an extensive analysis of the amount of reading gain due to regression to the mean was not possible to compute. Additionally, the fact that so many sites were considerably delayed in providing CRI with student achievement data placed unduly heavy time constraints on CRI during the data analysis and Final Report phases.

B. Across-Site Scores by Grade Level

The scores reported in this section (Exhibit V-4) indicate the amount of gain shown across all sites at each grade level. Each score thus represents the amount of gain students made at a given grade level for each month of instruction they received. This information will locate grade levels at which reading gains are particularly high or low. Such data can suggest to USOE personnel appropriate target grade levels for future funding.

An "All Schools" score is also reported. This score was devised by calculating the mean gain from pre-test to post-test on each student in the Right to Read Program, summing the scores and dividing by the total number of students. It thus serves as an overall estimate of the amount of gain shown by all students in the program.

Exhibit V-4. Mean Gains--All Sites Combined
(Scores Indicate Amount of Gain Per Month of Instruction)

Grade Level	Mean Gain	Standard Deviation	Total No. Students
1	1.7	1.4	696
2	1.1	1.0	2,165
3	1.1	1.0	2,721
4	1.2	1.2	2,444
5	1.1	1.3	1,924
6	1.2	1.3	1,389
7	1.0	1.3	887
8	0.8	1.1	416
9	0.9	1.8	255
10 - 12	1.4	3.3	115
All schools and grade levels combined.	1.1	1.2	13,012

In addition to reporting scores by individual grade level, some sites reported scores of combined grade levels while others indicated some classes were of a special nature (e.g., special education, non-graded primary) and did not provide grade levels. Scores for these gains were included in computing the overall gain for all sites as reported in Exhibit V-4. It should be noted that the number of students included under any category in Exhibit V-5 is generally very small.

Exhibit V-5. Pre-Test, Post-Test, and Mean Gain Scores for Combined Grade Level Classes and Special Classes

Type of Class	Pre-Test Mean Score	Post-Test Mean Score	Mean Gain*	Standard Deviation	Total No. of Students
Combined 5&6	4.3	5.0	0.7	0.9	40
Grades 4-6	4.8	5.7	0.9	0.6	212
Combined 4&5	3.8	4.3	0.9	1.2	217
Grades 3-5	3.0	3.8	0.9	0.7	11
Combined 3&4	3.2	3.7	0.5	0.9	60
Combined 1&2	2.1	2.8	0.8	1.1	25
Primary (Group I)	2.0	3.3	2.6	1.0	47
Primary (Group II)	1.9	3.0	1.2	0.6	35
Non-graded Primary (Group III)	1.5	2.6	1.3	0.7	48
Special Ed Elementary	1.7	2.0	0.4	0.6	13
Non-graded Elementary	3.2	3.7	0.6	0.9	71

*Mean gain scores were computed by dividing the difference between pre- and post-tests by the number of months that elapsed between the two tests. Relatively small pre-test to post-test differences therefore could result in gains beyond 1.0 per month of instruction if only five or six months elapsed between tests.

VI. RELATIONSHIP OF READING GAINS TO PROGRAM/PROCESS VARIABLES

A. Overview

The following section is designed to facilitate a discussion of the relationship of a number of program/process variables to student reading achievement. The relationships are presented both in narrative and in graph form to allow for reader ease in following the discussion of the data. Caution should be taken in interpreting the results of the analyses. The relationships examined are not necessarily causal, but instead are correlational and, therefore, only suggestive of cause and effect. Correlations are intended to show the interrelations of the variables in the analyses. They indicate the degree to which changes in one variable are related to changes in the other (either positive or negative).

The 1972-1973 operational conditions of the Right to Read Program did not permit CRI to control for the influence of variables external to those discussed in this report. It is likely that some of these other factors impacted upon reading achievement either independently or in conjunction with some of the program/process variables under investigation. Further, there is a strong likelihood that the program/process variables themselves are interrelated and do not influence reading achievement independently of each other. Therefore, one should not and cannot make definitive statements about the impact of the investigated variables on reading achievement. The meaningfulness of the correlations identified in this analysis is found in the suggestive evidence they present with regard to the impact of the variables on reading achievement. They also lay the foundation for selecting variables for study in a more controlled and rigorous research or evaluation setting than was possible for the current study.

B. Findings

1. Teacher Level Information

Correlations reported in the following section were computed on an individual teacher basis; that is, where a match was possible between what individual teachers reported in terms of the extent to which

they made use of specific program variables, and student scores from those same teachers, a correlation was computed. For the most part point biserial correlations were computed. Exceptions to this method were in the cases of "number of years teaching", "number of evaluation activities", and "number of teacher aide classroom activities", where the Pearson product moment correlation coefficient was used.

Although numerous significant correlations between program variables and reading gains were identified, the distinction between "significant" and "meaningful" correlations must be kept in mind. Thus, a correlation of .12 may be significant even at the .001 level, but whether it is truly meaningful in terms of how much influence the variable actually had on achievement is open to question. Of the forty-five correlations reported below, thirteen were significant (ranging from .001 to .059). The meaningfulness of all, however, is uncertain, since no correlation is greater than .18.

For a variety of reasons the nature of the present first-year study was such that significant correlations could be found while still showing relatively low degrees of correlations between program variables and reading gains. Among these reasons are the following:

- Grade Level Spread

  This evaluation required that all grade levels from first through twelfth grades be analyzed. While only one high school was included in the sample, there were three junior high schools with various classes at each grade level. Additionally, the forty elementary schools included a large number of classes at each of the six grade levels. It was not to be expected that specific program variables (such as reading approach or parent involvement) would operate in a similar manner at each grade level. When they did not, the effect was to lower the correlation between a program variable and reading gains.

- Size of Sample

  In any study that involves a large number of subjects, significant

differences are likely to be found that are not particularly meaningful. This study involved 423 teachers in each of thirty-three correlations (out of forty-five) that were computed.

- Absence of Control Groups

There were no provisions for control groups in this first year study. A future study, now that preliminary correlations have been identified, will allow comparisons between treatment and control groups in order to ascertain more precisely the amount of variance in reading gains that is attributable to specific program variables. This will tend to eliminate the uncertainty that is present when correlations are found that are low but clearly significant.

- Use of Gain Scores

This study required that schools report information on reading achievement in a uniform manner. It was decided, therefore, that all schools would report student scores in terms of gain scores from pre- to post-test. Since a wide entry-level range of reading skills characterized the students in our schools (many were poor readers) correlations between program and outcome variables were lowered. If students had begun the school year at approximately the same reading level the correlations may have been higher.

- Use of Point Biserial Correlations

Most of the program variables in these correlations lent themselves most readily to the point biserial correlation coefficient procedure. This requires the computation of a correlation between a dichotomous variable (e.g., schools did or did not have formative evaluation, or a Reading is Fundamental program) and a continuous variable (reading gains). While the significance levels for this type of correlation are the same as those found between means when t-tests are used, correlations tend to be lower than when the Pearson product moment correlation is used.

In spite of the fact that even the significant correlations reported below are not high, trends are evident and the correlations do suggest variables that appear to be contributing to the highest reading gains as reported in Section V. These trends and impacting variables are discussed in Section VII. B.

a. Basic Reading Approach

The Right to Read Office provided each site with descriptive statements on a total of nine basic reading approaches. In assessing the degree to which individual teachers used each approach, virtually all teachers made use of these categories, although CRI's instrument provided an alternative labeled "other".

Correlations between reading gains shown by students and the number of hours spent per semester in each of the reading approaches are reported in Exhibit VI-1. A total of 423 teachers reported data on these reading approaches.

Exhibit VI-1. Correlations Between Basic Reading Approach and Reading Gains

Reading Approach	Correlation Coefficient	Level of Significance
Meaning Emphasis	-.12	.006*
Code Emphasis	-.06	.11
Linguistics	.01	.43
Modified Alphabet	-.02	.35
Responsive Environment	.05	.14
Programmed Learning	.08	.05*
Individual Reading	.06	.10
Language Experience	.05	.16
Eclectic or Teacher's Own	.04	.19

*Statistically significant
n=423

b. Reading Instruction Techniques

A total of eleven basic instructional techniques were identified and described by the Right to Read Office. CRI assessed the number of hours per semester spent in each mode. Virtually all teachers (n=423) indicated they made use of one or more of the techniques. Few indicated they used a technique not identified on our instrument. Exhibit VI-2 shows correlations between instructional technique and reading gains among students.

Exhibit VI-2 . Correlations Between Instructional Techniques and Reading Gains

Instructional Techniques	Correlation Coefficient	Level of Significance
Machine-based Program Instruction	.02	.31
Other Programmed Instruction	.12	.005*
Gaming/Simulation	.06	.12
Instructional TV	.03	.25
Interactive Media	.11	.01*
Intensive Involvement	.03	.29
Discussion Groups	.13	.004*
Demonstration-performance	.02	.36
Lecture	-.08	.059*
Contracts	.10	.02*
Use of Supplementary Materials	.04	.20

*Statistically Significant
n=423

c. Teacher-Student Organization

A total of 423 teachers indicated the number of hours spent in each of six different teacher-student organization groupings. These scores were correlated with reading gains as shown in Exhibit VI-3.

Exhibit VI-3. Correlations Between Teacher-Student Organization and Reading Gains

Organization Scheme	Correlation Coefficient	Level of Significance
Single Teacher-Multi-Subjects	.04	.22
Reading Specialist (responsible for more than one class)	.07	.08
Team Teachers	.005	.46
Student Cross-age Teaching	.10	.02*
Tutor-Specialist	.001	.49
Tutor-Aide	.11	.01*

*Statistically significant
n=423

d. Student Grouping

Teachers were requested to indicate the number of hours spent per semester in each of three types of groups. These were: individualized, small group (five students or less) and large group (six or more students). Exhibit VI-4 shows correlations between teacher responses (n=423) and reading gains.

Exhibit VI-4. Correlations Between Student Grouping and Reading Gains

Group Types	Correlation Coefficient	Level of Significance
Individualized Reading Instruction	.12	.008*
Small Groups (five students or less)	.09	.03*
Large Groups (six or more students)	-.03	.26

*Statistically significant
n=423

e. Teacher Aides

A total of 290 teachers indicated the type and number of activities teacher aides performed in the classroom. While the majority of teachers indicated that most teacher aides were parents, some were student teachers, community organization members, or high school students. Activities performed by aides in the classroom included the following:

- Tutoring students
- Distributing Materials
- Classroom maintenance
- Working in small or large groups
- Marking Tests
- Preparing materials
- Supervising field-trips
- Supervising recreational activities

A correlation of .13 was found by correlating the number of classroom activities performed by teacher aides in a classroom with gain scores of students in that classroom. This correlation was significant at the .02 level, as shown in Exhibit VI-5 .

Exhibit VI-5 . Correlation Between Number of Classroom Activities Performed by Teacher Aides and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Classroom Activities	.13	.02*

*Statistically significant

f. Number of Years Teaching

A total of 418 teachers indicated the number of years they had taught prior to the 1972-1973 school year. To determine

whether this variable sustained a functional relationship with reading gains the two variables were correlated. As Exhibit VI-6 shows, a correlation of .06 was found. This was not significant.

Exhibit VI-6. Correlation Between Number of Years Teaching and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Years Teaching	.06	.10

n 418

g. Classroom Evaluation

Teachers (n=423) were requested to indicate the types of evaluation activities that were performed in the classroom. A total of twleve activities were identified as follows:

- Diagnostic reading tests are used with most or all students to determine individual reading needs.
- The teacher has formulated or selected specific objectives for each student.
- The teacher has formulated or selected specific objectives for the entire class.
- The teacher has developed or identified an instrument for measuring attitudes toward reading.
- The teacher has developed or identified an instrument for measuring attitudes toward reading for the entire class.
- Performance of students is measured in terms of objectives set for each individual.
- Performance of students is measured in terms of objectives set for the entire class.
- Visible records are kept of class performance.

- Records of each student's performance are kept with respect to each objective.
- Students are kept informed of their progress.
- Students are involved in self-evaluation.
- Parents are informed of students' progress.

A correlation was computed (Exhibit VI-7) between the number of evaluation activities used by each teacher and reading gains. This correlation was -.18, which is significant at the .001 level.

Exhibit VI-7 . Correlation Between Number of Classroom Evaluation Activities and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	-.18	.001*

*Statistically significant
n=423

2. School Level Information

In addition to collecting program data from individual teachers and correlating those scores with student achievement, CRI also collected data on a school-wide basis to compute correlations with student achievement. These data were found in the self-evaluation reports that the forty-four project directors sent to CRI at the end of the 1972-1973 school year. Correlations between reading gains and variables relating to overall program planning, implementation, and evaluation are presented below. Reading gain scores included in these correlations are not mean class gains as in Section (1) above. Instead, the overall mean gain for each school was used.

a. In-Service Training

Of the forty-four schools that sent self-evaluation information, all reported some type of in-service training. Since schools

provided more information related to the kinds of in-serivce activities they utilized rather than how intensive or long-lasting those activities were, a correlation was computed between the number of in-service activities schools participated in and the overall mean gain of the school. Exhibit VI-8 shows that a correlation of .17 (p=.14, not significant) was found.

Exhibit VI-8. Correlation Between Number of In-Service Training Activities and Reading Gains

	Correlation Coefficient	Level of Significance
Number of In-Serivce Training Activities	.17	.14

n=44 schools

b. Unit Task Force Activities During Planning Phase

A total of twenty-eight schools reported specific activities undertaken by the UTF during the planning phase (i.e., until program implementation in the Fall of 1972). Thirteen types of activities were identified by these sites. These were:

- Gather data and information
- Aid in needs assessment
- Prepare reading materials
- Develop proposal and/or work statement
- Work with program planning materials
- Identify program objectives
- Assist in staff development
- Develop criterion-referenced tests
- Meet with technical assistants

- Develop diagnostic/prescriptive approach
- Develop budget
- Evaluate program
- Disseminate information

The correlation between the number of activities engaged in by the UTF during planning and mean gains was .19, which was not significant (p=.10).

Exhibit VI-9. Correlation Between Number of UTF Activities During Planning Phase and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	.19	.10

n=28 schools

c. Unit Task Force Activities During Implementation Phase

Thirty-one schools reported specific activities of the UTF during program implementation. These activities were as follows:

- Meet with technical assistants or consultants
- Review program progress
- Assist in staff development
- Develop criteria for student selection or placement
- Serve on special committees
- Assist in status and reporting activities
- Disseminate program information
- Develop community involvement activities
- Keep records of program activities

- Diagnose students
- Identify tutors
- Program evaluation

A correlation of .12 (not significant, p=.22) was found between the number of activities sites engaged in and reading gains.

Exhibit VI-10. Correlation Between Number of UTF Activities During Implementation Phase and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	.12	.22

n=31 schools

d. Technical Assistance

Thirty-eight schools specified ways in which the technical assistants (provided by the Right to Read Office) were utilized. The following activities of technical assistants were mentioned:

- Develop reading materials
- Develop proposal or work statement
- Develop or modify program objectives
- Develop diagnostic/prescriptive approach
- Work with the Unit Task Force
- Conduct needs assessment
- Assist in staff development
- Identify alternative approaches
- Develop budget
- Schedule team teaching
- Secure materials

- Observe classes
- Interpret guidelines and test results
- Assist in parent involvement
- Liaison with Right to Read in Washington, D.C.
- Evaluation

A correlation of .19 (not significant, p=.10) was found between the number of activities technical assistants engaged in and reading gains, as shown in Exhibit VI-11.

Exhibit VI-11. Correlation Between Number of Activities of Technical Assistants and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	.19	.10

n=38 schools

e. Diagnostic-Prescriptive Approach

Forty-three of the sites identified specific ways in which the diagnostic-prescriptive approach was used. These activities were numerous and wide-spread in nature. Among those mentioned were:

- Standardized achievement tests
- Skill sessions or units
- Language experience
- Mastery testing
- Basal reader tests
- Teacher observation
- Progress records
- Special reading classes
- Tutorial programs
- Student case history

- Student-selected reading materials
- AV, multi-media
- Learning centers

The correlation between reading gains and the number of diagnostic-prescriptive activities used was .04. This was not significant (p=.39).

Exhibit VI-12. Correlation Between Number of Diagnostic-Prescriptive Activities and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	.04	.39

n=43 schools

f. Parent Involvement

Thirty-eight schools specified ways in which parents were involved in program activities. These included:

- UTF involvement
- Initial planning
- Program implementation
- Information dissemination
- Community relations
- Classroom visits
- Workshops and conferences
- Preparing materials
- Assisting as aides, volunteers or tutors
- Developing supplementary activities
- Involvement in the Reading is Fundamental Program
- Serving on school Advisory Council

Reading gains were correlated with the number of parent activities identified at each site. A correlation of .08 (not significant, p=.30) was found.

Exhibit VI-13. Correlation Between Number of Parent Activities and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Activities	.08	.30

g. Program Planning Procedures

Thirty-two sites indicated ways in which they used this document supplied by the Right to Read Office (see Appendix A for description). Uses identified were varied and, at times, ambiguous. Some were:

- As a working tool
- To provide structure for program implementation
- To identify student and teacher needs
- To specify objectives
- To specify areas of responsibility
- As checklist throughout school year
- To provide overall view of student achievement

Exhibit VI-14. Correlations Between Use of Program Planning Procedures and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Ways PPP was Used (n=32 schools)	.04	.39
Rating of PPP's Usefulness (n=34 schools)	.22	.11

When the number of uses of the PPP was correlated with gain scores, a correlation of .04 (not significant, p=.39) was found.

Thirty-four schools rated the PPP in terms of the documents' usefulness. Thus, a rating of "not useful", "useful", or "very useful" was obtained from each of these sites. When ratings were correlated with reading gains a correlation of .22 (not significant, p=.11) was obtained.

h. Status and Reporting Center

These materials were also provided to each school by the Right to Read Office (see Appendix A for description). Twenty-five schools identified specific ways in which the Status and Reporting Center was used. These included:

- As a working tool
- For information dissemination to community
- To display program progress throughout year
- For program planning
- For program needs assessment
- To facilitate task assignments
- To forecast outcomes

When the number of uses of the Status and Reporting Center at each site were correlated with reading gains a correlation of .04 (not significant, p=.41) was found.

Thirty-three sites also indicated the usefulness of these materials. Ratings were either "not useful", "useful", or "very useful". A correlation of .06 was found between perceived usefulness of the Status and Reporting Center and student reading gains. This correlation was not significant (p=.37).

Exhibit VI-15. Correlations Between Use of Status and Reporting Center Materials and Reading Gains

	Correlation Coefficient	Level of Significance
Number of Ways S and RC was Used (n=25 schools)	.04	.41
Rating of S and RC's Usefulness (n=33 schools)	.06	.37

i. Reading Is Fundamental Program

This program essentially provides paper-back books to schools to supplement available reading materials. A total of eleven schools reported the presence of this program. Overall school reading gains from these schools were compared with those of the remaining thirty-three schools (Mann-Whitney U Test). The difference in gain scores between the two groups was not significant.

j. Formative Evaluation

Thirty-five schools indicated they used a formative evaluation procedure during the school year. Seven said they did not. The correlation between reading gains and use of the formative evaluation procedure was .01 (not significant, p=.48).

k. Summative Evaluation

Eight schools reported using a summative evaluation technique. Thirty-six said they did not. A correlation of .04 (not significant, p=.39) was found between reading gains and use of summative evaluation techniques.

VII. MAJOR FINDINGS

A. Reading Achievement

An analysis of reading gains at 44 schools was conducted in this evaluation. Of these, 40 were elementary schools, 3 were junior high schools, and 1 was a high school. A total of 27 schools (68 percent) at the elementary level met the U. S. O. E. criterion of one-month gain for each month of instruction (total school mean gain, see Exhibit V-1). Of the three junior high schools, one school (33 percent) met the criterion as did the one senior high school. Thus, with respect to the total sample of 44 schools, 29 (66 percent) showed gains of one month or more per month of instruction (see Exhibit VII-1).

Exhibit VII-1. Number of Sites by Grade Level Demonstrating Month-for-Month Reading Gains

Gain	Grade Level		
	Elementary School	Junior High School	High School
Total Sites in Sample	40	3	1
Number of Sites Demonstrating One-Month Gain or more per Month of Instruction	27	1	1
Percent	68	33	100

Mean gain scores by site ranged from a low of 0.4 to a high of 2.0 months per month of instruction. At the elementary level it is interesting to note that greater gains appear to be associated with the implementation of a Right to Read program at as many grade levels as possible. For example, of the nine sites showing gains of 1.5 or more per instructional month, six had a program at either five or all six grade levels, while of the four sites showing gains of 0.7 or less only one had a program at five grade levels, one at four grade levels, one at two grade levels,

and one had the program at one grade level. This suggests increased reading gains result at each grade level as the number of grade levels implementing the Right to Read program increases.

As noted elsewhere in this report, sites that did not meet the month-for-month criterion may nevertheless have demonstrated considerable improvement in reading gains when compared with results from previous years. Scores from previous years were not available for comparisons in this evaluation. Sites that showed gains above 1.0 for each instructional month are to be classified as successful on the basis of the U.S.O.E. criterion. A number of sites demonstrated exceptionally high gains (above 1.5 months' gain). Exhibit VII-2 shows the number of sites found in various score categories.

Exhibit VII-2. Reading Gains by Score Category and Grade Level

Gain (Per Month of Instruction)	Grade Level				Percent of Total Sample
	Elementary School	Junior High School	High School	Total	
0.4 to 0.9	13	2	-	15	35
1.0 to 1.4	18	1	1	20	45
1.5 or Above	9	-	-	9	20
Total Sites in Sample	40	3	1	44	100

Exhibit VII-2 shows that almost half (45 percent) of the sites were in the 1.0 to 1.4 score category, nine sites (20 percent) gained more than 1.5 months, while fifteen (35 percent) were below the 1.0 level for each month of instruction.

The Right to Read Office identified six geographical regions for this study (Exhibit VII-3). Mean gains on a per-site basis and by geographical region are presented in Exhibit VII-4. The most consistent spread of scores was shown in Region D where three schools were found in each of the three score categories. Region A was the only region that did not have any school above the 1.4 level, but four out of the five schools were in the 1.0 to 1.4 category. Region F was shown to achieve the lowest overall gains with one school at or above 1.5, one school between 1.0 and 1.4, and three schools below 1.0. In general, however, the six regions were quite consistent in terms of overall achievement across the three score categories.

Gain scores across classes were combined by grade level at each site to compute mean gains at each grade level across sites. This analysis identifies for the Right to Read Office those grade levels at which reading gains were highest and lowest. This will provide important information regarding levels that are in greater need of increased program emphasis. Exhibit VII-5 shows the number and percent of schools that demonstrated month-for-month gains at each grade level. Grades ten through twelve are not shown since the single high school did not provide scores by grade level. It is evident from Exhibit VII-5 that schools tend to implement their Right to Read program at the second grade instead of at the first. Almost three times as many schools have the program at the second grade as at the first grade (32 at second, twelve at first). Why this is so is not presently known but there appears to be no strong reason for not beginning the program when most students first begin to read, i.e., in the first grade. It may be that the Right to Read funding requirement that most students be identified in the lowest quartile (as assessed by standardized reading tests) is one cause, since first grade students normally do not have scores from a previous year which assess their reading ability.

Exhibit VII-3. Regional Breakdown

Region A	Region B	Region C
Connecticut	Delaware	Alabama
Maine	Illinois	Florida
Massachusetts	Indiana	Georgia
New Hampshire	Maryland	Kentucky
New Jersey	Michigan	Louisiana
New York	Ohio	Mississippi
Puerto Rico	Pennsylvania	North Carolina
Rhode Island	Virginia	South Carolina
Vermont	Washington, D. C.	Tennessee
Virgin Islands	West Virginia	
Region D	**Region E**	**Region F**
Arizona	Colorado	Alaska
Arkansas	Iowa	Guam
California	Kansas	Idaho
New Mexico	Minnesota	Nevada
Oklahoma	Missouri	Oregon
Texas	Montana	Washington
	Nebraska	
	North Dakota	
	South Dakota	
	Utah	
	Wisconsin	
	Wyoming	

Exhibit VII-4. Reading Gains by Score Category and Geographic Region (All Schools are Elementary Unless Indicated Otherwise by Asterisk)

Gains Per Month of Instruction	Region						Totals
	A	B	C	D	E	F	
0.4 to 0.9	1	4	2	3	2**	3**	15
1.0 to 1.4	4**	3	1	3	8*	1	20
1.5 or Above	-	2	2	3	1	1	9
Total Schools in Region	5	9	5	9	11	5	44

* = Includes one high school; ** = Includes one junior high school

Exhibit VII-5. Number and Percent of Schools Demonstrating Month-for-Month Gains by Grade Level

Gain	Grade Level								
	1	2	3	4	5	6	7	8	9
Number of Schools with Classes at this Grade Level	12	32	37	30	28	22	3	2	2
Number of Schools Showing Gains of 1.0 or Higher	8	17	24	21	16	12	2	0	0
Percent Showing Gains of 1.0 or Higher	67	53	65	70	57	55	67	0	0

This analysis also shows that fewer second grade classes achieved a gain of 1.0 or higher (53 percent) than any other grade level through seventh grade. This may be a function of the relative inability of second graders to cope with a new program (funding was dependent on the school's commitment to adopt a relatively new reading program) as compared with older students. Nevertheless, the percentage of sites showing month-for-month gains at each grade level (first through seventh grades) is quite stable. The range was 53 to 70 percent.

Although a very low sample of junior high schools was analyzed (three in all) no school demonstrated overall gains as high as 1.0 at either the eighth or ninth grades (see Exhibit V-4 also). This finding suggests that the reading programs at these levels are less effective for students and are in need either of greater emphasis or a different approach altogether for meeting the needs of these older students.

In general reading gains in classes that combined different grade levels were not nearly as high as gains found at single grade levels (see Section V, B Exhibit V-5, this volume). Few of the combined grade level classes, for example, scored as high as one month gain per month of instruction (although classes of fifth and sixth grades, classes of fourth through sixth, and classes of third through fifth had a mean gain of 0.9 each). The only exceptions appear to be the three primary groups where it is assumed that students would have been in grades one, two, or three if classes had been separated by grade levels. These three groups showed gains of 2.6, 1.2, and 1.3 months per month of instruction.

It thus appears that in this sample of schools, learning to read in combined grade level classes did not take place to the same degree as where grade levels were separated. Other factors may also account for lower reading gains in these classes, of course. But since in this first year of program evaluation full controls were not possible, the full extent to which other factors explain lower reading gains cannot be determined. However, the fact that only three of ten classes in which grade levels were combined reached one month gain per month of instruction, while all single grade levels from first through seventh grades did, is highly suggestive that classes of single grade levels were more conducive in and of themselves to greater reading gains than were combined grade level classes.

Reading Gains and Student Sex

Reading gains of male and female students were compared by grade level in this evaluation. Exhibit VII-6 shows these scores. A total of 12,878 students were compared for this analysis. Of these, 6,600 were males and 6,278 were females. Students participating in special or combined classes were not included.

Exhibit VII-6. Gain Scores by Student Sex and Grade Level

Criterion	Grade Level Gain Score								
	1	2	3	4	5	6	7	8	9
Males	1.5*	1.0**	1.1	1.2	1.1	1.2	1.0	0.8	0.8
Standard Deviation	1.4	1.0	1.0	1.2	1.3	1.3	1.4	1.2	1.7
n	369	1103	1358	1270	997	691	462	219	131
Females	1.8*	1.2**	1.1	1.2	1.2	1.2	1.1	0.9	0.9
Standard Deviation	1.5	1.0	1.0	1.2	1.3	1.3	1.2	1.0	1.8
n	327	1060	1359	1172	925	689	425	197	124

* p = .01; ** p = .01.

These statistics show a high degree of similarity across sexes. The total number of males and females at each grade is approximately the same, as are standard deviations. A decline in mean gain scores for both sexes at the upper grade levels (particularly the eighth and ninth grades) is apparent (as discussed earlier).

Female students showed superior gains in this analysis. Of the nine grade levels reported in Exhibit VII-6, their mean gain was higher than that of male students at six levels (first, second, fifth, seventh, eighth, and ninth). At the other three grade levels, their gain was equal to that of males (third, fourth, and sixth). The greatest difference between male and

female gains was at the first and second grades. t-tests showed that at these levels, female scores were significantly higher than male scores ($\rho = .01$, Exhibit VII-7). Scores were not significantly different at grade levels above the second grade. Thus the difference at these levels may be due to chance. However, the consistent tendency of female scores to be higher than male scores combined with the fact that at grades one and two, female scores were significantly higher suggests that for some reason female students did have superior gains overall than males. This finding tends to confirm other studies which have found that female students generally develop in verbal skill areas at an earlier age than males.

Exhibit VII-7. Results of t-Tests on Male/Female Reading Gains at Grades 1 and 2

Criterion	Grade 1		Grade 2	
	Male	Female	Male	Female
Mean Gain	1.51	1.85	1.04	1.17
Variance	1.82	2.22	1.01	1.04
n	369	327	1103	1060
df	694		2161	
Level of Significance	.01		.01	

Reading Achievement and Student Ethnicity

A comparative analysis of reading gains and student ethnicity was conducted on a per-site basis (Exhibit VII-8). This analysis was effected by identifying sites in terms of the predominant ethnic group in attendance and using the single mean gain score assigned to each site as reported earlier. Sites that had 60 percent or more students of any one ethnic group were placed in that ethnic category. A special ethnic category was used for two sites where the largest ethnic percentage was above 50 but below 59 percent (see footnotes a and b of Exhibit VII-8).

Black and Spanish-speaking sites were represented among the 40 elementary schools in a manner approximating their total national population. Thus, six sites (15 percent of the 40) had 60 percent or more black students, five (12.5 percent) had 60 percent or more Spanish-surname students and two (five percent) had 60 percent or more combined black and Spanish-surname students. Exhibit VII-9 shows these figures.

When gain scores were compared on an ethnic basis (Exhibit VII-10) numerous important findings were observed. It is evident, first, that no school which had 60 percent or more combined black and Spanish-surname students showed overall gains (all students combined) above 0.9. Although the number of schools in this ethnic category is low (two schools), these findings suggest greater program emphasis (or greater program innovation) is necessary at such schools. Further, only one predominantly black and one predominantly Spanish-speaking site (out of a total of eleven schools = 18 percent) achieved gains as high as 1.5 or above, while seven out of 25 (28 percent) of the predominantly white schools did. This difference, however, was not significant (chi-square test). While the spread of scores among schools that were predominantly black or Spanish-speaking was fairly even across the lowest (below 1.0) and middle (1.0 to 1.4) score categories, schools that were mostly white had twice as many in the middle category as in the lowest and had more in the highest category (1.5 or above) than in the lowest. Schools that were predominantly black or Spanish-surname had more (twice as many in this small sample) in the lowest than in the highest score categories.

Exhibit VII-8. Reading Achievement (Month-for-Month Gain Scores) and Student Ethnicity (On Pre-Site Basis) at 40 Elementary Schools

60-100% White		60-100% Black		60-100% Spanish-Surname		60-100% Black and Spanish-Surname		60-100% Other Combinations	
School	Overall Gain	School	Overall Gain	School	Overall Gain	School	Overall Gain	School	Overall Gain
0101	2.0	0510	0.4	0509	1.8	1501	0.7	2801[a]	1.1
0201	0.9	0801	1.6	3201[b]	0.7	1504	0.9	3402[c]	0.9
0401	1.7	1505	1.0	3202	1.0				
0602	1.4	1601	1.2	4511	0.8				
1001	1.0	3302	0.7	4512	1.1				
1301	1.1	4510	1.0						
1502	1.0								
1701	0.8								
1801	0.8								
2101	0.8								
2105	0.9								
2402	1.0								
2602	1.0								
2701	1.1								
2901	0.8								
3306	1.3								
3801	2.0								
3901	1.5								
4101	1.2								
4201	1.6								
4506	1.6								
4601	1.6								
4701	1.3								
5101	1.3								
5201	1.2								

a = 56% Mexican American, 37% White, b = 59% Mexican American, 37% White, c = 42% Black, 58% White

Exhibit VII-9. Ethnic Representation of 40 Elementary Schools

Category	Number of Schools in Sample	Percent of Total (40)
60 percent or more white students	25	62.5
60 percent or more black students	6	15
60 percent or more Spanish-surname students	5	12.5
60 percent or more combined black and Spanish-surname students	2	5
60 percent or more other combinations	2	5
TOTALS	40	100.0

Exhibit VII-10. Reading Gains and School Ethnicity

Category	Gain Scores						
		Below 1.0		1.0 to 1.4		1.5 or Above	
	Number in Sample	Number of Schools	%	Number of Schools	%	Number of Schools	%
60 percent or more white	25	6	24	12	48	7	28
60 percent or more black	6	2	33	3	50	1	17
60 percent or more Spanish surname	5	2	40	2	40	1	20
60 percent or more black and Spanish-surname	2	2	100	-	-	-	-
60 percent other combinations	2	1	50	1	50	-	-

A further analysis of reading gains and student ethnicity was conducted on an individual-student basis. This analysis required that all students in the entire student population be identified by ethnicity and their gain scores compared by ethnic group.

Exhibit VII-11 identifies reading gains by ethnicity at grade levels one through nine. High school scores are not included since the high school in this sample did not report scores by grade level. Although scores of Oriental and "other" ethnically identifiable students were reported, no grade level included as many as ten such students (all sites combined). Their reading gains therefore, will not be treated in the discussion below. Empty cells in Exhibit VII-11 indicate no data were reported.

Exhibit VII-11. Reading Gains by Ethnicity and Grade Level

Grade Level	Ethnicity						
	Reading Gain	White	Black	Spanish-Surname	Indian	Oriental	Other
1	Gain	1.6	2.5	1.3	0.2	1.9	1.4
	St. Dev.	1.8(n=220)	1.2(n=159)	0.9(n=219)	1.1(n=10)	1.7(n=2)	0.2(n=2)
2	Gain	1.3	0.8	1.0	1.3	1.0	2.6
	St. Dev.	1.0(n=1012)	0.9(n=606)	1.1(n=469)	1.0(n=17)	1.4(n=8)	0.7(n=3)
3	Gain	1.3	0.9	0.9	0.9	1.4	1.4
	St. Dev.	1.0(n=1285)	1.0(n=735)	1.0(n=636)	0.7(n=14)	0.8(n=4)	1.1(n=5)
4	Gain	1.2	1.2	1.0	1.0	1.2	
	St. Dev.	1.2(n=1560)	1.2(n=385)	1.1(n=461)	1.2(n=27)	1.3(n=6)	
5	Gain	1.2	0.9	1.3	0.9	0.2	0.6
	St. Dev.	1.2(n=920)	1.2(n=440)	1.5(n=501)	1.0(n=20)	1.6(n=6)	0.6(n=5)
6	Gain	1.2	0.9	1.2	1.9	1.1	3.9
	St. Dev.	1.2(n=789)	1.4(n=275)	1.4(n=305)	1.9(n=11)	1.3(n=5)	2.6(n=4)
7	Gain	1.0	1.0	1.0	0.8		
	St. Dev.	1.4(n=806)	1.2(n=30)	1.0(n=41)	0.9(n=10)		
8	Gain	0.8	1.2	0.2	0.7		
	St. Dev.	1.1(n=384)	1.1(n=16)	0.1(n=2)	1.2(n=13)		
9	Gain	0.9			1.4		
	St. Dev.	1.8(n=240)			1.4(n=15)		

A comparison of reading gains by ethnicity and grade level indicates that in general, white and black students had higher gains at the various grade levels more frequently than any other ethnic groups. For example, white students had (or shared) the highest mean gain at four of the nine grade levels (second, third, fourth, and seventh) and had the second highest gain at three other grade levels (first, fifth, and sixth). White students did not have the lowest gain at any grade level except the ninth, where comparison was made with Indian students only.

Black students also had (or shared) the highest mean gain at four grade levels. These were the first and eighth grades, sharing the highest gain at grades four (with whites) and seven (with whites and Spanish-surname students). However, black students also showed the lowest comparative gains at second, third (with Spanish-surname and Indian students), fifth (with Indian students) and sixth grades.

Spanish-surname students showed the highest comparative gain at grades five and seven (with black and white students). They had the lowest comparative gain at grades three (with the blacks and Indians) and four (with Indian students).

Indian students as a group showed the highest comparative gains at grades two (with whites), six and nine. They were lowest in comparative achievement at grades one, three (with black and Spanish-surname students), four (with Spanish-surname students), five (with blacks), seven and eight. Exhibit VII-12 shows these comparative data.

These comparisons imply the greatest overall gains were achieved by white students who were highest at four grade levels, and lowest at only one. Black students were highest at four grade levels but also lowest at four; Spanish-surname students were highest at two and lowest at two grade levels. Indian students appear to have shown the lowest relative gains, demonstrating highest gains at three levels but the lowest gains at six grade levels.

When gain scores were compared within ethnic groups and across grade levels, various observations were made. White students, for example, demonstrated their highest gains at grade levels one through

Exhibit VII-12. Highest and Lowest Mean Gains by Ethnicity and Grade Level

Grade Level	Ethnicity*			
	White	Black	Spanish-Surname	Indian
1		X		O
2	X	O		X
3	X	O	O	O
4	X	X	O	O
5		O	X	O
6		O		X
7	X	X	X	O
8		X		O
9	O			X

*Key: X = Had (or shared) highest mean gain of any ethnic group.
O = Had (or shared) lowest mean gain among ethnic groups.

three, moderate gains at grades four through six, and their lowest gains at grades seven through nine. Thus, a consistent decrease in reading gains was evident as grade level increased from first through ninth grades. This trend is consistent with findings discussed earlier (Exhibit V-4), where gains of all students (all ethnic groups combined) showed the same decrease as grade level increased.

Except for an unusually high gain at the first grade level (2.5, n = 159), black students were fairly consistent across the various grade levels. Mean gains ranged from a low of 0.8 per instructional month (second grade) to a high of 1.2 (fourth and eighth grades). Spanish-surname students were similarly consistent in their gain scores across grade levels, ranging from a low of 0.9 (third grade) to a high of 1.3 (first and fifth grades). Their gain of 0.2 at the eighth grade should not be considered as a reliable estimate of the population due to the extremely low sample at this grade level (n=2).

For Indian students a low of 0.2 at first grade and a high of 1.9 at sixth grade were demonstrated. These scores are suspect, however due to the low sample at these grade levels (n = 10 at first grade, n = 11 at sixth grade). Otherwise, their scores were comparable in the main to those of the other ethnic groups ranging from 0.7 (eighth grade) to 1.4 (ninth grade).

It is noteworthy that gain scores of black, Spanish-surname, and Indian students did not show the same downward trend as grade levels increased that white students did.

Teacher Attributions When Students Succeed and Fail

Teacher scores from Forms A and B (the Locus of Control instruments) resulted in rather symmetrical but not normal distribution curves. These instruments required that teachers indicate the sources to which they attribute success in learning to read (Form A) and the sources to which they attribute failure to learn to read (Form B). The total number of respondents for Form A was 417 while for Form B (an entirely separate sample of teachers) the total was 420.

An analysis of the means (2-tailed t-test) showed a significant difference (t value=2.55, p=.02, df=835). Although the means are quite similar, the size of the sample for each form was such that significant differences were found. Thus, teachers in this sample scored significantly higher when attributing to the sources of success (Form A) than when attributing to the sources of failure (Form B, see Exhibit VII-13 below). This means that teachers were significantly more internal on the success attributions than on the failure attributions.

Exhibit VII-13. Comparison of Statistics Derived From Teacher Locus of Control Forms A and B (sig. p = .02)

	Form A	Form B
N	417	420
Mean	31.360*	30.912
Mode	31	31
Median	31.3	30.9
Standard Deviation	2.400	2.670
Standard Error	.118	.130
Kurtosis	.35	.41
Range	24-40	22-39

When each subset on each form was scored and analyzed separately, a number of significant findings resulted (Exhibit VII-14). It was found, for example, that teachers viewed the two external subsets differentially. When forms were combined, the mean score for attributions to students (indicating perceived responsibility for both success anf failure in

learning to read) was 10.427, while the mean for attributions to other external factors was 13.692. This difference was highly significant (p=.001). Teachers thus considered that external factors such as the student's socioeconomic background, whether his parents read at home, his sex, and how fortunate he is, were far less influential in learning to read than such student attributions as how carefully the student works, how much confidence he has in himself, how alert he is during reading instruction, how much he cares about learning to read, and how much academic ability he has.

Exhibit VII-14. Mean Scores of Teacher Attributions for Reading Success and Failure (Forms A and B Combined)

	Form A (success)	Form B (failure)	Row Marginals
Student	10.206*** (n=417)	10.648**** (n=420)	10.427*
Other External Factors	13.703 (n=417)	13.681 (n=420)	13.692*
Self (internal)	10.835*** (n=417)	11.476**** (n=420)	11.155*
Column Marginals	11.581**	11.935**	
Standard Deviation	1.790	1.666	

*p=under .001 ***p=.001
**p=.004 ****p=.001

Finally, when attributions to self were compared with attributions to students, it was found that teachers attributed significantly more responsibility for success as well as failure to students (Exhibit VII-14, p=.001).

In sum, while it was found that teachers attributed significantly more success to themselves than failure, when attributions to students were compared with internal attributions, teachers indicated students are significantly more responsible for both success and failure in learning to read.

An additional finding on Forms A and B related to factors teachers frequently identified as most important in learning to read or failing to learn to read. When asked to indicate the two most important items on Form A (success attributions), more teachers chose "How much confidence the student has in himself" (Item C, Teacher Questionnaire, Form A, Appendix B) than any other of the eighteen items. The same item was also found most often when teachers indicated their second choice (out of eighteen possible choices). In second place each time was "How much the student cares about reading".

On Form B, when teachers were asked to indicate the two most important items accounting for failure to learn to read, the most frequently identified item among first and second choices was "How much the student cares about learning to read" (Item J, Teacher Questionnaire, Form B). The item, "How much confidence the student has in himself" was in second place among both first and second choices for Form B.

These two items thus were of considerable importance when teachers were asked to identify the sources of reading success and failure. Those responding to Form A said reading success is more attributable to student self-confidence than any other factor, and indicated that the second most important factor was how much the student cares about reading. Teachers who responded to Form B (an entirely separate sample from Form A) identified the same two factors as most important in failing to learn to read, but said student concern was most important and student self-confidence was second most important.

Teacher Attributions and Teacher Ethnicity

At a high level of significance ($p < .001$) black teachers were found to be more internal than white teachers on a combined forms analysis (Exhibit VII-15).

Exhibit VII-15. Statistics on Black, Chicano and White Teachers From Locus of Control Instruments (Forms A and B Combined)

	Black	Chicano	White
n	147	33	576
Mean	32.018*	31.667*	30.903*
Median	31.9	31.3	30.8
Mode	32.0	31.0	30.0
St. Dev.	2.4	3.2	2.5
Variance	5.5	10.1	6.2
Range	26-39	26-40	22-38

*F-Test sig. diff., p.<.001

Scores of chicanos were not significantly different from those of black or white teachers when forms were combined. When Forms A and B were analyzed separately, it was found that blacks were more internal than whites because they attributed both success and failure significantly more to themselves than whites did (Exhibit VII-16).

Exhibit VII-16. Teacher Locus of Control Scores by Ethnic Groups (Forms A and B)

	Black		Chicano		White	
	Form		Form		Form	
	A	B	A	B	A	B
n	77	70	18	15	283	293
Mean	31.935	32.171	33.111	29.933	31.201	30.614
St. Dev.	2.124	2.593	3.085	2.521	2.373	2.585
Median	31.6	32.2	32.5	30.0	31.2	30.5
Mode	30.0	32.0	32.0	31.0	32.0	30.0

Teacher Attributions and Student Reading Gains

Correlations between teacher locus of control scores and student reading gains were calculated separately on two groups of schools. The first group consisted of two elementary schools (one in California and one

in Idaho) where the Stanford Achievement Test (SAT) had been administered. Twenty teachers were identified at these schools who had filled out Form B (the "failure to learn to read" form) and had instructed a reading class at either fourth, fifth, or sixth grade (only these grades were used in the correlations) during the 1972-73 school year. The second group consisted of four elementary schools at which twenty-seven teachers were identified at the same grade levels and who had previously completed the Form B instrument. These schools were located in Alaska, Pennsylvania, Vermont, and Iowa. The Metropolitan Achievement Test (MAT) was administered at these four schools. At least 87 percent of the total student population at five of the six schools were identified as white, while at the remaining site 67 percent were black and 32 percent were white.

Before computing the correlations locus of control scores were first calculated for purposes of comparison with the entire sample of teachers that completed Form B (n=420). As Exhibit VII-17 shows, mean scores were highly similar. It may therefore be concluded that the 47 teachers were a reliable estimate of the entire sample of teachers in terms of internal-external orientation.

Exhibit VII-17. Comparison of Locus of Control Scores Between Teachers Selected for Reading Gain Correlations and Total Sample (Form B Only)

	Sample of 20 Mean	Sample of 27 Mean	Total Sample (n=420) Mean
Attributions to Students	9.60	10.60	10.65
Attribution to Non-Student External Factors	12.70	13.30	13.68
Internal Attributions	11.25	12.22	11.48

Our hypotheses that teachers who scored highest on internal attributions would also have the highest reading gains among students, that teachers scoring highest on external non-student attributions would have

the lowest reading gains, and that teachers with the highest scores on student attributions would have moderate reading gains among their students were not confirmed. In fact, although two independent samples of teachers (n=20 and 27) were included in these computations and two separate analyses were conducted on each sample, only one correlation (out of eight) was found that was significantly different from zero. For these two samples, therefore, teacher scores along the internal-external continuum were not systematically related to reading gains among students.

Teacher Attributions and Grade Level Taught

A significant negative correlation (p=.001, Exhibit VII-18) was found between teacher internality and grade level taught. Mean scores for elementary teachers (teaching a single grade level) consistently decreased as the grade level varied upward. Thus, teachers of the early elementary grades were significantly more internal than teachers of later grades (see F-Test, Exhibit VII-19).

Exhibit VII-18. Teacher Locus of Control Scores by Grade Level (Forms A and B Combined)

Grade Level Taught	Number of Teachers	Mean	St. Dev.	Variance
1	113	31.425	2.637	6.952
2	105	31.362	2.359	5.564
3	108	31.231	2.482	6.159
4	80	30.412	2.533	6.417
5	70	30.857	3.155	9.951
6	56	30.339	2.301	5.296

Exhibit VII-19. Analysis of Variance Among Teacher Locus of Control Scores by Grade Level

	Mean Square	df	F-Test	Significance Level
Among Groups	18.533	5	2.753	.019
Within Grops	6.733	526		

B. Relationship of Reading Achievement to Program/Process Variables

A total of forty-five correlations between reading gains and program/process variables were conducted in this evaluation at the classroom level. Of these, thirteen were found to be statistically significant. These significant correlations identify those variables which, across all sites, were systematically related to reading gains. The correlations which were positive (ten of the thirteen) identify variables whose increased utilization was associated with increased reading gains to a degree not attributable to chance. The three negative correlations identify variables which, the less they were included in the program, the greater the reading gains were. The thirteen significant correlations were found in a number of different program areas.

Of the nine correlations computed between reading approaches and reading gains, two were significant. "Meaning emphasis" had a correlation of -.12 (p=.006) with reading gains. These data suggest that this particular approach had a negative effect on learning in this sample. "Prpgrammed learning"was the only other significant correlation between reading gains and basic reading approaches. A correlation of .08 (p=.05) was found, suggesting that this approach was the most affective in terms of producing reading gains.

Ten correlations between "reading instruction techniques" and reading gains were computed. Of these, five were significant. These were:

- Other programmed instruction (i.e., not machine-based) (correlation=.12, p=.005)
- Interactive media (correlation=.11, p=.01)
- Discussion groups (correlation=.13, p=.004)
- Lecture (correlation=-.08, p=.059)
- Contracts (correlation=.10, p=.02)

These findings, along with those discussed above in basic reading approaches, imply that when the student is given individualized attention, an opportunity to interact with the materials or the lesson in an independent, individual and self-paced manner, he learns best. The fact that lectures were significantly and negatively correlated with gain scores clearly tends to confirm this conclusion.

Six correlations between reading gains and "teacher-student organization" were computed (using the number of hours spent in each of six different organizational schemes). Of these, two were significant. These were:

- Cross-age teaching (correlation=.10, p=.02)
- Tutor-aide teaching (correlation=.11, p=.01)

These findings additionally confirm those mentioned above, namely, that the optimal learning situation for students in this sample was one in which the student was given individualized attention, as in a one-on-one situation required by either cross-age or tutor-aide organizational scheme. Such teacher-student groupings as found in team teaching and single teacher/multi-subjects were not significantly related to gain scores. Use of a reading specialist (which may also have been a one-on-one situation) while not significant, did approach significance (p=.08).

Additional evidence confirms our conclusion that the optimal learning situation for students in this sample was one in which he was either alone or in a small group. Three correlations were computed between "Student grouping" and reading gains. These groups and correlations were as follows:

- Individualized reading instruction (correlation=.12, p=.008)
- Small group (five students or less) (correlation=.09, p=.03)
- Large group (six or more students) (correlation=.03, p=.26)

Of these, both the individualized and the small group situations showed significant (positive) correlations with reading gains.

Finally, when the number of activities performed in the classroom by teacher aides was correlated with reading gains, a correlation of .13 (p=.02) was found. This was statistically significant. Among other activities, teacher aides performed such tasks as tutoring students and working in small groups with students. The other classroom activities teacher aides performed (such as supervising recreational activities, preparing materials, marking tests, and distributing materials) very likely could have freed the teacher for increased attention to individualized student needs.

It is not surprising that so many of the significant correlations identified in this evaluation suggest that learning is maximized by an individualized learning situation. This may be one in which the student responsibly commits himself to learning under an individualized "contract" situation, one in which he receives individual attention from a peer (cross-age teaching) a teacher aide, the teacher or a tutor-aide, or one in which he is given programmed materials or interactive media from which to learn. Most of these students were poor readers at the beginning of the 1972-1973 school year, when compared with national norms. This implies that traditional teaching methodologies had not been effective with them. Something special was needed to elicit from them evidence of their true learning potential. The correlations described above strongly suggest that when their needs were attended to in an individualized manner, significant learning did take place.

This type of learning situation has obvious advantages. The likelihood of immediate feedback (knowledge of whether one is right or wrong) is greatly enhanced in an individual or small-group situation as compared with large-groups. Further, the student has the opportunity to respond many more times in a given period of time than in large groups. Additionally, the development of a warm and positive relation between teacher (or aide or peer) and student is enhanced since more interaction takes place between them. This allows more opportunities for the teacher to show affection, respect, and positive regard for the student both as a learner and as a person. Finally, the individualized or small-group learning situation

facilitates the identification of the student's particular needs in reading, thus providing an instructional approach that is tailor-made for his needs. It may well have been that these factors caused significantly increased learning to take place in the Right to Read classrooms that were evaluated in this study.

It was expected that some of the school-level variables (as contrasted with classroom level variables described above) would have been significantly correlated with reading gains. These variables included such programmatic features as in-service training, parent involvement, use of technical assistants, and the use of certain materials supplied by the Right to Read Office. There were no significant correlations found between reading gains and these variables.

It may be that these variables do not independently exert sufficient influence on the reading program to result in significant correlations when in isolation they are correlated with reading gains. This is not to suggest, however, that they do not account for a part of the success shown at the Right to Read schools during this evaluation. For the purposes of this study, nevertheless, there were no school-level program variables that were functionally related to reading gains to a statistically significant degree.

VIII. SUMMARY OF SELF-EVALUATION REPORTS

The Right to Read Office required that each school-based site conduct a self-evaluation and report its findings to CRI. A summary of these findings (with tables) is reported below in terms of three major areas: Objectives and Degree of Accomplishment, Major Findings, and Recommendations. All of the sites stated some information about their program objectives and the degree to which they were accomplished; a summary of major findings was included in the reports from 36 sites, while 38 sites reported recommendations.

A. Objectives and Degree of Accomplishment

Fourteen program objective areas were identified and classified into four major categories--student, teacher, parent/community, and program. The percentage of sites that selected any one objective ranged from nine to 100 percent. The five most frequently cited objective areas were student reading achievement (100%), reading related skills (86%), student attitude (79%), parental involvement (68%), and student behavior (63%).

In addition to listing its objectives, each site was requested to determine the degree to which each reported objective was accomplished. In the area of student behavior, 42 percent of the reporting sites stated that their objectives were fully accomplished; 28 percent said they were partially accomplished; seven percent said they were not accomplished; and 22 percent did not clearly indicate the degree of accomplishment. In the area of parental involvement, 50 percent of the sites reported full accomplishment; 30 percent reported partial accomplishment, six percent reported the objectives were not accomplished; and thirteen percent did not clearly state the degree of accomplishment. In regard to student attitude: 45 percent of the sites reported full accomplishment of objectives; 28 percent reported partial accomplishment; two percent reported they did not accomplish the objective(s), and 22 percent did not clearly state the degree of accomplishment. Twenty eight percent of the sites reported full accomplishment of reading-related skills; 36

percent of the sites reported partial accomplishment; two percent reported they did not accomplish the objective(s), and 31 percent did not clearly state the degree of accomplishment. In the area of reading achievement, 34 percent of the sites reported full accomplishment; 40 percent stated partial accomplishment; and 25 percent did not clearly state the degree of accomplishment. (For a complete breakdown of objective areas and their degree of accomplishment, see Table VIII-1.)

Table VIII-1. Objective Areas and Degree of Accomplishment

Objective Areas	Fully Accomplished		Partially Accomplished		Not Accomplished		Did Not Clearly State Degree of Accomplishment		No. of Sites Reporting and Percent of Total Sample	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Student										
Student Attitude	16	46	10	29	1	2	8	23	35	79
Student Behvaior	12	43	8	29	2	7	6	21	28	63
Reading Achievement	15	34	18	41	0	-	11	25	44	100
Reading-related Skills	11	29	14	37	1	2	12	32	38	86
Teacher										
Teacher Competency	8	40	7	35	0	-	5	25	20	45
Teacher Attitude	3	43	1	14	0	-	3	43	7	15
Teacher Behavior	7	58	2	17	1	8	2	17	12	27
Parent										
Parental Involvement	15	50	9	30	2	6	4	13	30	68
Parent Attitude	6	54	1	9	1	9	3	27	11	25
Program										
Information Dissemination	4	100	0	-	0	-	0	-	4	9
Individualization of Instruction	10	91	1	9	0	-	0	-	11	25
Innovations	3	100	0	-	0	-	0	-	3	6
Inservice Training	6	100	0	-	0	-	0	-	6	13
Additional Materials/ Personnel	4	100	0	-	0	-	0	-	4	9

B. Major Findings

Each site was requested to indicate the major findings of its self-evaluation. No specific format was given for reporting the findings; therefore, a broad range of information was received. CRI staff reviewed these findings and organized them into 16 categories (see Table VIII-2. Major findings were reported most frequently in student reading achievement, student attitudes, teacher competency and parental involvement.

Eighty-seven percent of the sites reported that their reading achievement findings were satisfactory. In the category of student attitudes, 90 percent of the sites reported they were satisfied with their findings. Eighty-six percent of the sites stated that their findings were satisfactory in the areas of teacher competency and parental involvement.

C. Recommendations

CRI categorized site recommendations into 16 major areas. The percentage of sites suggesting recommendations in any one area ranged from two to 47 percent (see Table VIII-3). Recommendations were most frequently made in three areas: in-service training (47 percent of all sites), parental involvement (28 percent), and continued funding (23 percent). In-service training recommendations suggested either continuing or increasing the present level. Most of the recommendations about parental involvement were related to involving more parents in the education of their children. Sites indicated they were generally making a strong effort in this area, but for the most part they were not very successful.

Table VIII-2. Summary of Self Evaluation Report Findings

Major Areas of Findings	Sites Indicating Findings Were Satisfactory		Sites Indicating Findings Were Not Satisfactory		No. of Sites Reporting and Percentage	
	N	Percent	N	Percent	N	Percent*
Reading Achievement	21	87	3	13	24	67
Reading Related Skills	6	75	2	25	8	22
Social Skills	7	100	-	-	7	19
Student Attitude	18	90	2	10	20	55
Teacher Competency	13	86	2	14	15	41
Teacher Attitude	5	100	-	-	5	13
Teacher/Pupil Relations	2	100	-	-	2	5
Teacher/Staff Relations	4	100	-	-	4	11
Parental Support	8	100	-	-	8	22
Parental Involvement	13	86	2	14	15	41
Inservice Training	7	78	2	22	9	25
Program Flexibility	4	100	-	-	4	11
Technical Assistance	4	67	2	33	6	17
Changes in Reading Approach	2	100	-	-	2	5
Individualization of Instruction	11	100	-	-	11	30
Paraprofessional Assistance	6	100	-	-	6	17

*Percentages are based on total of 36 sites that reported data on major findings in Self-Evaluations

Table VIII-3. SUMMARY OF RECOMMENDATIONS FROM INDIVIDUAL SELF-EVALUATION REPORTS

Areas of Recommendations	Number and Percentage of Sites Making Recommendations	
	N	Percent*
Reading Achievement	7	18
Student Attitude	2	5
Remedial Help	3	7
Parental Involvement	11	28
Parent/School Communication	3	7
Inservice Training	18	47
Diagnostic/Prescriptive Approach	6	15
Program Expansion	8	21
Additional Materials	6	15
Teacher Competency	4	10
Evaluation	5	13
Continued Funding	9	23
Individualizations of Instruction	4	10
Reading Related Skills	1	2
Redefinition of Needs	2	5

*Percentages are based on total of 38 sites that reported data on Recommendations in Self-Evaluation.

IX. CONCLUSIONS AND RECOMMENDATIONS

The Right to Read Program was successful in achieving its goal of enabling at least fifty-percent of the school-based projects in this sample to show one month gain in reading for each month of instruction. This goal was an adequate challenge for a compensatory program of this nature. Of the forty elementary sites, twenty-seven (68 percent) showed month-for-month gains, as did one junior high (out of three) and the single high school. Thus, of the forty-four schools in this sample, twenty-nine (66 percent) met the success criterion. The following sections discuss both reasons for the success of the Right to Read program during this initial year of operations, and recommendations for improvement of the program at school-based sites.

A. Major Factor Accounting for Gains

The analysis of data in this evaluation clearly suggests that above all other considerations an individualized, independent learning situation has the greatest effect on learning. Of the ten positive and significent correlations found between program/process variables and reading gains, no less than nine indicate that when the student is in a one-on-one learning situation he learns significantly more. This type of learning may take place through programmed learning, interactive media, contracts, or various student-instructor organization schemes such as cross-age teaching, use of a tutor-aide or teacher aide, or in individualized or small group (five students or less) settings. All of the above situations showed statistically significant correlations with reading gains. Clearly, the Right to Read Program's emphasis on an individualized approach to reading and resolving reading problems was a major factor in enabling students to overcome initial reading deficiencies and, therefore, should continue to be a point of emphasis in the funding, planning, and implementating of future reading programs.

B. Recommendations

The findings of this study suggest a number of areas and ways in which the effectiveness of the Right to Read Program may be increased.

1. Emphasis on classrooms that involve single grade levels only should be made. Our analysis suggests that where more than one grade level was included under a single teacher in a single classroom learning did not take place to the same degree as in single grade level classes (compare Exhibits V-4 and V-5, Volume II).

2. Greater stress should be placed on the need to implement the Right to Read Program at the first grade. Our findings showed that while a total of thirty-two schools had the program at second grade and thirty-seven did at third grade, only twelve reported having the program at the first grade. Since much reading takes place at the first grade, however, it is obvious that the advantages a Right to Read program provides should also be found at the first grade (see Volume II, Exhibit V-1).

3. The analysis of overall grade level gains indicates that upper grades (i. e., seventh through ninth grades) did not show gains to the same degree that elementary grades did (see Volume II, Exhibit V-4, page V-6). It may be that factors accounting for reading gains at the lower grade levels are not as effective at the junior high level. But whatever the reason for lower gains at these levels, it is evident that increased efforts are needed at these levels for comparable results to take place.

4. The findings indicate that in general minority students (black, chicano, and Indian in this study) did not demonstrate gains to the same degree that white students did (see Volume II, Exhibits VII-10 and VII-11). Among these ethnic groups blacks showed the greatest gains. Increased efforts are needed to identify the reasons for these findings and solutions for the reading problems of minority students.

5. Our findings (see Volume II, page VII-17) indicate that teachers in this sample tended to attribute student success in learning to read signficantly more to themselves than when students failed to learn to read. Thus, they take credit for success but do not assume the responsibility when students do not learn to read. This inconsistency ought to be further investigated. The danger inherent in this phenomenon is that students will learn to attribute their success to the teacher and blame themselves when they fail.

6. Further study should be conducted to investigate why female students learn to read significantly better than male students at the first and second grades. Such factors as materials that are more appealing to females than to males, the lack of male teachers at these levels, and classroom activities that motivate females more than males should be considered in further studies.

7. Our findings indicate that when the majority of students in a school consists of Black and Chicano students combined, reading scores are not as high as when the majority of students is either Black or Chicano. This suggests that cultural variables are a factor and that teachers have not found the means for maximizing learning when confronted by students from both ethnic groups simultaneously. Further studies should be conducted to supply teachers with these means.